COLTON'S

Illustrated

CABINET ATLAS

AND

Descriptive Geography.

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COLTON'S

ILLUSTRATED

CABINET ATLAS

AND

DESCRIPTIVE GEOGRAPHY.



MAPS—BY G. WOOLWORTH COLTON.

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PUBLISHERS' ADVERTISEMENT.

THE "CABINET ATLAS AND DESCRIPTIVE GEOGRAPHY" is designed to supply an intermediate place between the larger and more elaborate works of the same description heretofore issued by the Publishers, and the higher class of school treatises; and the editors to whom its compilation has been intrusted (with this main object in view) have endeavored so to combine interesting information on natural science, history, and other pertinent matters with the more strictly geographical details as to produce a *readable book*—one in which the dignity of science and the easy colloquy of ordinary life are blended, and in which the various subjects treated upon are presented with fidelity and a genial diction. The work, indeed, is presented as an instructive manual, divested of the dry and forbidding features which have been too wont to characterize the branch of literature to which it belongs.

Among the attractive features of the work the maps, plans, and pictorial illustrations occupy a prominent place. They are to the eye what the text is to the understanding—giving locality and form to objects and completing description which, without such aid, would fail as a vehicle for exact representation. In the compilation and selection of these the greatest care has been taken to adopt nothing of the merely imaginary, and hence whatever has been admitted truly illustrates its subject. In execution they are clear and beautiful, and reflect the greatest credit on the advanced state of art in America.

In relation to the maps, the Publishers would further state that a valuable improvement has been introduced into their construction, by drafting them on a series of easily convertible scales—all having been drawn so that an inch of space represents distances of 25, 50, 100, 200, or some other readily compared number of miles; and hence by ordinary attention the reader will have little trouble in acquainting himself with the relative distances and extent of countries and places exhibited on the varying projections of the several maps. The profile views of surface elevation are also drawn on a uniform scale.

The Publishers would also state that a greater attention has been paid to Physical Geography than is usual in works of this description; and that in the introductory chapter the great truths of the science are plainly developed, and a correct knowledge of cause and effect in the economy of nature fully set forth. This portion of the work has been based on the excellent treatise on the same subject found in the Atlas of Milner and Petermann, recently published in London.

Another feature not common to works of this description, but yet of essential value and intimately connected with all national and social organizations, will be found in these pages. In this we refer to the elaborate statements of the "weights, measures, and moneys" appended to the descriptions of the several countries, and the equivalents of which in French metrical and United States values have been accurately calculated.

With these and many other improvements, and containing the most recent information and statistics, the Publishers believe the work herewith issued to be the most accurate and complete ever published in this or any other country. They believe it will meet the requirements of the age; and therefore commend itself not only to families for whose reading it is specially designed, but also to the merchant, statesman, editor, and to students generally. It is neither too elaborate for the one nor yet too deficient in substantial details and statistical matters as to be devoid of interest to the other.

NEW YORK, *October* 1, 1858.

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AND

DESCRIPTIVE GEOGRAPHY.

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Latitude 51° 28′ 38″ North.

DIFFERENCE IN LONGITUDE, 77° 2′ 48″.



OBSERVATORY AT WASHINGTON
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WESTERN HEMISPHERE



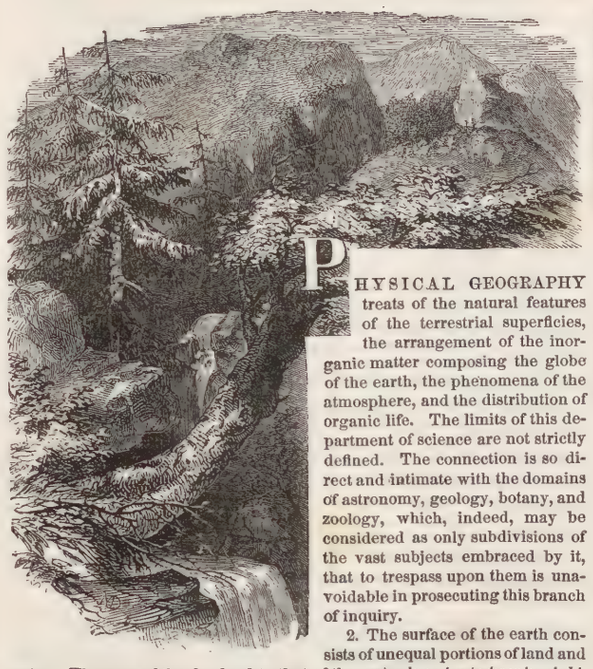
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EASTERN HEMISPHERE


NORTH POLE
SOUTH POLE
EQUATOR
MERIDIAN OF GREENWICH
ARCTIC CIRCLE
ANTARCTIC CIRCLE
TROPIC OF CANCER
TROPIC OF CAPRICORN
EUROPE
ASIA
AFRICA
AUSTRALIA
ATLANTIC OCEAN
INDIAN OCEAN
PACIFIC OCEAN
ARCTIC OCEAN
ANTARCTIC CONTINENT
North East Cape
North Cape
Cape Blanco
Cape Verde
Cape Palmas
Cape Three Points
Cape Lopez
Cape of Good Hope
Cape Agulhas
Cape Frio
Cape Delgado
Cape Guardafui
Cape Comorin
Cape Negrais
C. Aravella
C. Engano
C. Cambodia
C. Londonderry
C. York
C. Leeuwin
C. Amber
C. St. Mary
North West Cape
Cape Flattery
Sandy Cape
South Cape
Repulse Bay
Behring's Str.
Behring's Sea
Kamtschatka
Penjinskaia B.
OKHOTSK SEA
JAPAN SEA
YELLOW SEA
CHINA SEA
Gulf of Tartary
Sea of Aral
Caspian Sea
BLACK SEA
MEDITERRANEAN SEA
ADRIATIC SEA
ARABIAN SEA
BAY OF BENGAL
RED SEA
PERSIAN GULF
GULF OF GUINEA
Gulf of Carpentaria
Gulf of Cambay
Gulf of Cutch
Gulf of Oman
Gulf of Siam
Gulf of Tonquin
Gulf of Martaban
Gulf of Siddra
Gulf of Cabes
Gulf of Lyons
Gulf of Venice
Gulf of Genoa
Gulf of Patras
Gulf of Lepanto
Gulf of Corinth
Gulf of Salonica
Gulf of Archipelago
Gulf of Smyrna
Gulf of Finland
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Gulf of Riga
Gulf of Archangel
Gulf of Obi
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Gulf of Salonica
Gulf of Corinth
Gulf of Lepanto
Gulf of Patras
Gulf of Venice
Gulf of Genoa
Gulf of Lyons
Gulf of Cabes
Gulf of Siddra

PHYSICAL GEOGRAPHY.

INTRODUCTION.



PHYSICAL GEOGRAPHY treats of the natural features of the terrestrial superficies, the arrangement of the inorganic matter composing the globe of the earth, the phenomena of the atmosphere, and the distribution of organic life. The limits of this department of science are not strictly defined. The connection is so direct and intimate with the domains of astronomy, geology, botany, and zoology, which, indeed, may be considered as only subdivisions of the vast subjects embraced by it, that to trespass upon them is unavoidable in prosecuting this branch of inquiry.

2. The surface of the earth consists of unequal portions of land and water. The area of the dry land to that of the water is as *ten* to *twenty-eight*. The fluid portion of the surface thus predominates, occupying nearly three fourths of the entire superficies of the globe.

3. The solid and fluid portions of the surface are very unequally distributed—land predominating in the northern and occurring in comparatively insignificant force in the southern hemisphere. Supposing the quantity of land in the northern hemisphere to be represented by *forty-four*, the amount in the southern will be equal to only *sixteen*, or, more definitely, there are



LAND HEMISPHERE.



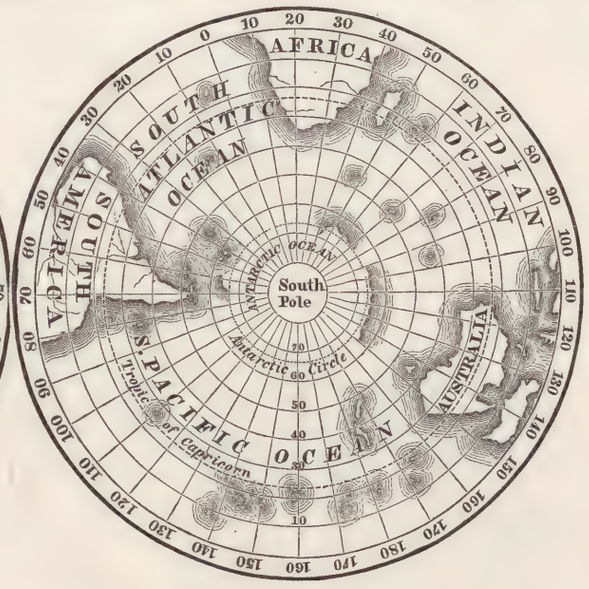
WATER HEMISPHERE.

one hemisphere, and its antipodes (a small island to the southeast of New Zealand) as the center of the other, the inequality in the distribution of the components of the surface will strikingly appear. The first will include nearly all the superficial land, and the other, excepting Australia, a part of South America, and some islands, will be oceanic. This preponderance of land in the northern hemisphere indicates the superior intensity of the causes of elevation in northern latitudes at a remote geological epoch.

5. Large continuous masses of land are termed Continents. There are two examples: the Eastern Continent, which includes Asia, Africa, and Europe, and the Western Continent, which includes North and South America. The



NORTHERN HEMISPHERE.



SOUTHERN HEMISPHEEE.

44,000,000 square miles of land in the northern and only 16,000,000 in the southern hemisphere.

4. Assuming the globe to be divided, not in the line of the equator, but in that of the meridian of Teneriffe, the quantity of land and water in the two divisions is still very unequal, land predominating in the eastern half, while the western is specially oceanic. But if London be taken as the center of terms "eastern" and "western" refer to the meridian of the Ferro Isles, from which longitude was formerly reckoned.

6. The rank of a continent has been assigned by some geographers to Australia; but it is so far inferior in extent to either of the other masses as to be more correctly placed in the class of islands. Australia, however, with the innumerable islands of the Pacific and Indian oceans, ranks, after Europe, Asia, Africa, and America, as a fifth grand division of the globe, under the title of Oceanica.

7. On modern maps there is also laid down what is styled the Antarctic Continent, but it has not as yet been positively ascertained that the land surface near the south pole is continuous. In the opposite hemisphere Greenland *may be* the projection of an Arctic Continent, extending around the north pole. The probability, however, is that these masses are insular.

8. The smaller portions of land, surrounded by water, are termed Islands. They are true continents in miniature, as the great masses are everywhere



ISLAND, OR LAND SURROUNDED BY WATER.

engirdled by the ocean. A considerable number of islands closely clustered is called an Archipelago.



PENINSULA—ISTHMUS—CAPE.

9. A part of a continent running out into the sea, so as to be nearly insu-

lated, being connected with the mainland by a small portion of its own circuit or a narrow neck, is named a Peninsula, signifying "almost an island." The peninsular form, indeed, is a very common feature of the land, and almost all peninsulas follow a southerly direction. This rule applies to Scandinavia, Spain, Italy, Greece, Africa, Arabia, India, Malacca, Cambodia, Corea, and Kamtschatka in the Eastern Hemisphere, and to South America, California, Florida, Alaska, and Greenland(?) in the Western Hemisphere. The peninsulas of Yucatan and Jutland are the chief exceptions. The cause of this singular fact remains in obscurity.

10. A narrow neck of land connecting two large masses is denominated an Isthmus, as the Isthmus of Suez, which unites Asia and Africa, and the Isthmus of Panama, joining North and South America.

11. Inferior projections of the land into the water are variously named Capes, Promontories, Points, and Headlands.

12. The continuous fluid which environs the land constitutes, properly speaking, a vast single ocean; but it is conveniently distributed into partial oceans, which are named after their localities. A smaller extent of water, especially if it penetrate far into the interior of a continent, is termed a Sea. Of such the Mediterranean, the Baltic, and Black seas are examples. The more partial intrusion of the ocean or sea into the land is characterized as a Bay or Gulf, as the Bay of Biscay and the Gulf of Mexico. A narrow passage connecting two seas together or a bay with the main ocean is styled a



BAY AND STRAIT.

Strait, as the Strait of Gibraltar, by which the Mediterranean and the Atlantic are connected.

13. A large inland body of water, not connected with the ocean, or only communicating with it by means of a river, is termed a Lake. The Caspian Sea, a true lake, the largest in the world, owing to its size and saltness has been dignified with the name of Sea.

THE LAND AND ITS PHENOMENA.



THE horizontal profile of the land, as seen in traveling through a comparatively level country, and the vertical profile as exposed by the side of mountains, ravines, and sea-cliffs, exhibit a great variety of substances, formations, or rocks differently arrayed.

15. The perforations of the miner extend but a little way below the surface. But in consequence of formations having been tilted up by the action of subterraneous disturbing forces, so as to be brought to or near the surface, the geologist has obtained a knowledge of the structure of the globe to the depth of about ten miles.

16. It belongs to the chemistry and mineralogy of geology to examine the composition and internal structure of rocks, while geography deals with their external aspect; yet a brief reference to these topics will not be out of place. Of fifty-four elementary or simple substances, that is, those which are incapable of further analysis, sixteen form by their various combinations nearly the whole of the matter yet known to enter into the composition of the globe. These are as follows, arranged into three classes according to their amount—the first of each class being the most abundant.

a. Six metalloids or the bases of earths and alkalies—silicum, aluminum, potassium, sodium, magnesium, and calcium.

b. Two metals proper—iron and manganese.

c. Eight non-metallic substances—oxygen, hydrogen, nitrogen, carbon, sulphur, chlorine, fluorine, and phosphorus. The metallic substances mentioned united with oxygen form the great mass of rocks consolidated or unconsolidated.

17. The elementary substances are rarely found by themselves in nature but combined with each other as binary or ternary compounds, forming the simple minerals, of which eight or nine constitute the great mass of all known rocks. The important minerals are quartz, feldspar, mica, hornblende, carbonate of lime, talc, chlorite, augite, serpentine. Oxyd of iron is also very common.

18. Sometimes the simple minerals exist in large independent masses, as quartz and carbonate of lime; but in general two, three, or four are united to form a rock. Frequently the mineral constituents of a mass have been so much ground down previous to consolidation as to make the rock appear homogenous, as shale and clay-slate.

19. The manner in which the ingredients of rocks are arranged exhibits several varieties:—granular, as in granite; fibrous, as in asbestos; porous, as in pumice-stone; and laminar, as in mica-slate. The laminar structure presents many diversities—horizontal and inclined, contorted, zig-zag, etc. The varieties of lamination, which is almost entirely confined to sedimentary rocks, result from the different circumstances under which deposition has taken place in quiet or troubled waters, upon a horizontal or steep shore, and whether subject to lateral or vertical pressure.

20. The formations which constitute the solid matter of the globe accessible to man are divisible into the four grand classes of Plutonic, Volcanic, Metamorphic, and Aqueous rocks, terms referring to the mode in which they have been produced.

21. The "Plutonic" rocks are of igneous origin. They consist of crystalline masses, which while in a melted state were gradually cooled and consolidated at an immense depth under enormous pressure, and then upheaved by the elastic force of internal heat. But frequently the upheaving must have taken place before complete consolidation, as we find them protruded into cracks and fissures of superincumbent formations. Granite and its varieties, with some porphyries, belong to this class. They have no organic remains.

22. The "Volcanic" rocks, due likewise to the action of fire, are the produce of ancient volcanic eruptions. They have not been elaborated like the plutonic in the deep recesses of the earth, but for the most part solidified at or near the surface, with a less degree of pressure—a circumstance that has had a marked effect upon their appearance and structure. They have also a more diversified character, the volcanic fire having fused different kinds of strata in its outbursts. The basalts, green-stone, trachytes, and various porphyries belong to this class. They are frequently called trappean or trap rocks. No fossils are found in these formations.

23. The "Metamorphic" rocks are of sedimentary origin, but having been in contact with the plutonic while in a state of igneous fusion they have been altered in their texture, and crystallized by the action of intense heat. The gneiss, mica-schist, and part of the clay-slate systems belong to this division Like the two first-named formations these rocks are also non-fossiliferous.

24. The "Aqueous" rocks are those which are entirely due to the action of water, having either been deposited as a sediment by its mechanical agency in connection with gravity, or as chemical precipitates from solution. Formations of this class constitute by far the greater portion of the exposed crust of the globe. They all contain organic remains—fossils—and form three divisions called primary, secondary, and tertiary, subdivided into systems and groups. The primary and part of the secondary series are sometimes called Paleozoic, indicating the fact that the formations so named contain the fossil remains of the earliest formed animals.

25. The order of succession in the metamorphic and aqueous rocks is invariably maintained, or, in other words, while many members of a group and entire systems may be wanting, whenever they do occur they are found to occupy the same relative position. Thus if the old red sandstone is at the surface, the carboniferous system is not the under-lying formation. Chalk beds are never found below the coal measures, or the coal measures below rocks of clay-slate; but either chalk or coal may occur immediately above the slate, the intermediate formations being wanting.

26. The igneous rocks, plutonic and volcanic, exhibit generally amorphous or irregular masses without divisional structure, but broken by fissures, the summits being dome-shaped, globular, or deeply serrated ridges in the form of needles. The metamorphic and aqueous rocks, on the contrary, are disposed in the form of beds, layers or strata, both horizontal and inclined at all angles to the horizon. The plains and low portions of the earth are occupied almost universally by stratified rocks. They appear also in elevated districts and on the flanks of mountainous regions. Strata vary in thickness from a few inches to many yards and fathoms.

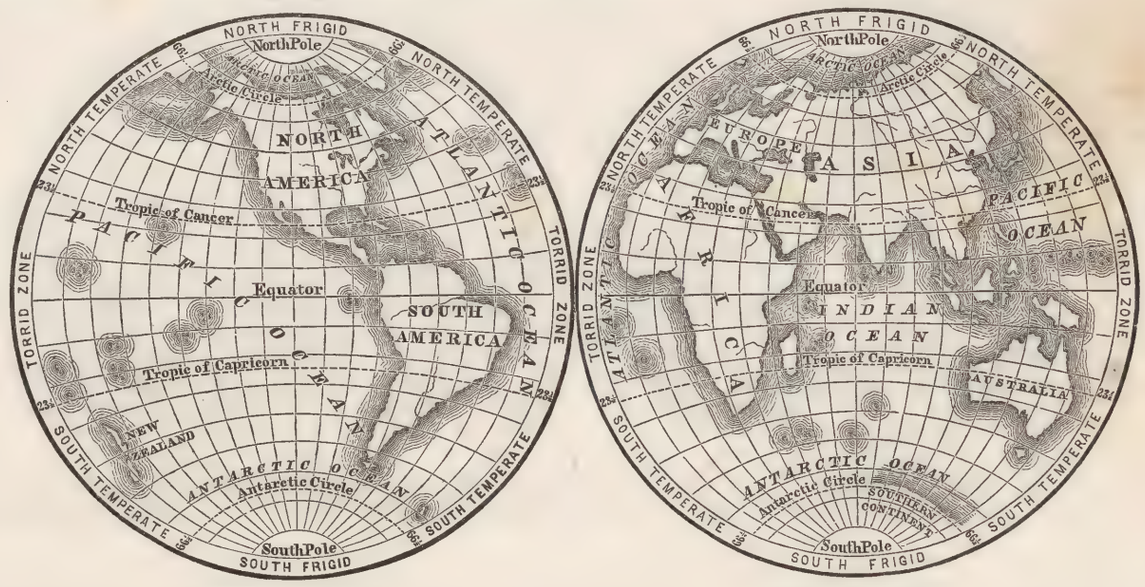
27. The general conclusion obviously indicated by the preceding fact is, that the rocks of fusion or the unstratified masses which constitute the basis of the crust of the earth have been repeatedly erupted through and into the stratified formations, at different epochs of critical action among the subterranean agencies of heat. Hence the various dislocations of the stratified rocks, their disturbed and inclined positions, their upheaval above the deep in which they were deposited, and frequent elevation along the flanks and on the crests of high mountain ranges, which commonly have igneous masses for their nuclei or axes. The force exerted by the elastic vapors, which the earth incloses in the elevation of mountains, however vast, immeasurably yields to the power indicated in the upheaval of the general surface of the land to its far inferior altitude.

CONTINENTAL MASSES.

28. The great Eastern Continent extends through upward of 200 degrees of longitude—from Cape Verde (17° 30′ west), the most westerly point of Africa, to East Cape (190° east), the eastern extremity of Asia. It embraces upward of 200 degrees of latitude, from North East Cape (78° north), in Siberia, to Cape Lagullas (35° south), the southern extremity of Africa.

29. The superficial area of this mass of land is estimated at about 33,000,000 square miles. It has a maritime coast-line of more than 60,000 square miles, and attains its greatest elevation in Central Asia, reaching the enormous height of 29,002 (Gahoorishanka) feet above sea-level, the culminating point of the globe. The greatest depression is the shores of the Dead Sea, which at water-level is 1,200 feet below the Mediterranean.

30. Of the three divisions of the Continent, Europe comprises somewhat less than one eighth of the entire area, Africa more than a third, and Asia more than half. Africa is more than three times, and Asia more than four times the size of Europe.



WESTERN HEMISPHERE. EASTERN HEMISPHERE.

31. The southwestern member of the Continent (Africa) is in many respects diverse from the other portions. Externally, a comparatively unbroken coast-line, and internally, deficient water communication, with the preponderance of sandy deserts, mark the contrast. Asia and Europe exhibit repeated examples of deeply indented shores, and both are plentifully supplied with great river systems and fertile soil; and each has a large central protuberance or nucleus—the Himalayas of Asia and the Alps of Europe—bifurcated at its extremities, the spine of the respective masses, and following the same general direction and composed of the same granatoid rocks and crystalline schists, and flanked by the same recent sedimentary formations. The narrow gorges opened by nature, which admit of the passage of the chains, and serve as thoroughfares to commerce, have precisely similar features, and are only more formidable in the Himalayas. The great tertiary and alluvial valley north of the Alps answers to Toorkistan and Mongolia. Piedmont and the plain of Lombardy are miniature likenesses of the basins of the Indus and the Ganges; and the vast igneous district of Hindoostan has its correspondent in the volcanic zone of Italy. The southern peninsulas of the two regions are also obvious analogues—Spain and Arabia, Italy and Hindoostan, the Morea and Malacca.

32. The Western Continent extends through upward of 130 degrees of longitude, from Cape San Roque (35° west), the most easterly projection of South America, to Cape Prince of Wales, in Behring Strait (168° west), the most westerly point of North America. It embraces upward of 120 degrees of latitude, from Point Barrow (72° north), in the Arctic Ocean, to the Strait of Magalhaens, 54° south.

33. The superficial area of America is about 15,000,000 square miles, and the sea-coast a linear extent of 40,000 miles. The greatest elevation is 25,000 feet above the level of the sea, but more than 4,000 feet below the culminating point of the Eastern Continent. The longest line that can be traced passes from Point Barrow along the Rocky Mountains, and the Cordilleras of the Andes to the Strait of Magalhaens, a distance of about 10,000 miles.

34. A striking dissimilarity appears in the general contour of the two continents. In the Eastern the prevailing direction of the land is east and west; in the Western it is perfectly opposite, being north and south. The forces that raised the two masses seem to have acted at right angles to each other—in the direction of the equator in the Old, and of the meridian in the New World.

35. The Western Continent exhibits a simpler outline than the Eastern. Its maritime coast has a less proportion of irregularities or indentations, no interruption of consequence occurring on the side toward the Pacific, except at California. The eastern sea-board of South America is also comparatively entire.

36. Granite appears to be the base or skeleton of both continents, but while it occurs at a great elevation in the Old World, forming some of the highest points of the Alps, it occupies a subordinate position among the rocks of the American mountain chains. The inferior and predominant formations of the Cordilleras are immense amorphous masses of porphyritic, basaltic, and trachytic rocks, for the most part of comparatively recent date. These volcanic products constitute a great portion of the chain and form its loftiest summits, while in the Eastern Continent they occur in inferior force, and never at great elevations.

37. The two continents, however, have some points of resemblance. Both terminate pyramidally toward the south. Their limits to the north have nearly the same latitude—that of 70° generally; and an important member of each is almost isolated, a narrow isthmus connecting Africa with Asia, and uniting the Americas. Descending to detail, we find the northerly projection of the peninsula of Jutland, in Europe, repeated in that of Yucatan, in America, the only important exceptions to the southerly directions of peninsulas; and the remarkable crevices or fiords of the Norwegian shore are repeated on the coast of southern Chile and western Patagonia.

38. Comparing the two sides of the Atlantic basin, a mutual adaptation to unite may be observed in the advancing and retreating configuration of the land masses. Thus the great convexity of western Africa is opposite to the indentation of the Gulf of Mexico, and the convexity of the Brazilian shore is opposite the indentation of the Gulf of Guinea. The bold conception has been entertained from this peculiar outline, that the two continents once formed an undivided territory which some great convulsion separated, creating the Atlantic valley, into which the ocean poured.

39. The mean height of continents or their elevation above the sea-level, supposing the respective masses to be equally distributed, is a subject investigated by Humboldt with somewhat surprising results. He finds the mean height to depend not so much on the longitudinal mountain chains, "those culminating points or domes which attract the curiosity of the vulgar," as on the gentle but extensive and compact swellings of the plains and the development of the table-lands. Thus it is calculated that the Pyrenees would produce upon the whole of Europe scarcely the effect of six feet, and

the Alps about 22 feet, while the plateau of Spain, an inferior elevation, but more compact, would produce an effect of 76 feet. If the vast range of the Andes were pulverized, and spread equally over the eastern plain of South America, its effect would be to raise the surface only about 518 feet. Omitting Africa, which is comparatively unknown, the final results obtained are an elevation above the level of the sea—for Europe of 670 feet, North America 750 feet, South America 1,130 feet, and Asia 1,150 feet, or a mean elevation of the whole of 920 feet.

ISLAND MASSES.

40. Islands rarely occur solitarily surrounded by a wide expanse of ocean, but usually form groups and archipelagoes contiguous to some main shore. Solitary islands are commonly small and of volcanic origin, as Helena, Ascension, etc. A few islands placed at no great distance from one another, or a principal island surrounded by others of smaller size, constitute a group;



ISLAND OF ST. HELENA.

and several islands varying in their extent and distance, but in the same general locality, an archipelago. Groups and archipelagoes have frequently detached or outlying members, which are sometimes called "Sporades" or scattered islands.

41. Some islands are simple accretions of sand; while others are tracts more or less extensive, evidently, from their geological characteristics, erupted portions of adjacent continental masses. A vast number are volcanic, either at present the scenes of fiery convulsion or proclaiming the past activity of the tremendous element by their igneous masses and crater-form outlines. Coralline islands are the work of organic beings which exist in inappreciable numbers chiefly in the tropical seas, the Indian and Pacific oceans.

42. Of the islands which have once formed portions of continents, there are numerous examples. The geological affinity between southern England and northern France is obvious, and no one can doubt that they were once united by an isthmus, through which the sea has cut a passage and formed the Strait of Dover. And so with the Grecian archipelago, and so the Japanese Islands, and with the Indian archipelago—each of which has geological relation to its adjacent continental mass. Their continuity has been interrupted by violent oceanic invasion, and the portions intermediate between the present continental and insular shores become submerged.

43. Volcanic Islands, though widely distributed, are chiefly found in the Indian and Pacific oceans, forming three great zones, each extending several thousand miles. The formation of new islands by submarine volcanic action is a phenomenon of the present era. Some of these remarkable creations have either entirely disappeared by subsidence or remain as shoals, slightly depressed below the surface of the ocean, while others have continued permanent. An instance in point is Graham Island.—In July, 1831, a column of water was seen rising from the sea like a waterspout, followed by a dense steam and an island, which gained the height of 200 feet and a circuit of three miles. Toward the close of the year it gradually subsided, and now forms a dangerous shoal.



GRAHAM ISLAND, COAST OF SICILY.

44. Coralline Islands consist of the agglutinated skeletons of departed races of polypi, composed of carbonate of lime secreted from the ocean, cemented into hard calcareous rock, and within a certain range of the living organisms, adding by their growth to the superstructure

45. The coral insects can not exist if left dry, or at a greater depth than from 25 to 30 fathoms. All the coral above the water-surface is dead, and likewise all below the depth ascertained to be the limit of coral life. The fact of its occurrence hundreds of feet below this limit, with the general phenomena of the formations, is beautifully explained by the theory that the foundations upon which the insects or polyps originally began to build have been in course of subsidence. This view is confirmed by the circumstance that the lines of volcanic activity in the Indian and Pacific oceans, or the areas of elevation, are in general remote from the spaces occupied by the coral-working insects, the supposed areas of subsidence.

46. Coralline formations are distributed into the four great classes of lagoon islands to which the native name of "Atolls" is generally applied, encircling reefs, barren reefs, and fringing reefs.

a. Lagoon Islands or Atolls consist of a belt of coral circling a lagoon or vacant space of the ocean. The coral above the surface is usually not more than a quarter of a mile in breadth, and so low that it would not be perceptible at a short distance but for its vegetable clothing of cocoa-nuts and palms. The lagoons themselves vary in extent from a few acres to many square miles. Bow Atoll is 30 by 6 miles across; Rimsky Atoll 54 by 20 miles, and one of the Maldive Atolls is 88 miles by 10 or 20 miles. The Atolls are variously circular, oval, and irregular in shape, and occur solitary or in groups, but usually in elongated archipelagoes. Dangerous Archipelago, east of the Society Islands, is an assemblage of 80 or more atolls; the Low Archipelago, to the



LAGOON ISLAND OR ATOLL.

north, an ellipse, 840 miles in its longer and 420 miles in its shorter axis, and the Caroline Archipelago, north of New Guinea, comprises 60 groups of atolls about 1,000 miles in length. Between the extreme limits of the Carolines west and those of the Low Archipelago east there is a linear space of ocean extending upward of 4,000 miles in which the islands are for the most part atoll-formed.

b. Encircling Reefs differ only from the atolls in having one or more islands within the central expanse. The coral belt is commonly at the distance of two or three miles from the inclosed shore. Otaheite, the principal of the Society group, is a fine example; an island rising in mountains 7,000 feet high surrounded by a lagoon like an enormous moat from half a mile to three miles broad, which is separated from the outlying ocean by a reef of coral. The coral, both in the case of atolls and encircling reefs, has openings or channels in its circuit by which ships enter the lagoons, where they find excellent harborage.

c. Barren Reefs extend in straight lines in front of the shores of a continent or of a large island, frequently at a considerable distance from the land. New Caledonia has a reef of this kind 400 miles long; but the grandest example of coral formation existing is the great Australian reef. Externally, it starts up with little inclination from a fathomless ocean, stretches upward of a thousand miles along the coast, varies in breadth from 200 yards to a mile, and in distance from the shore from 20 to 70 miles. The inclosure is everywhere navigable. The Florida Reefs are of this class.

d. Fringe Reefs are mere ribbons of coral, inclosing no lagoons, but immediately lining the shore.



CORAL REEF AND ISLAND.

47. In a few instances islands have been registered as existing in certain parts of the ocean, which subsequent navigators have failed to find. Saxenburg Island and Isle Grande, both placed in the South Atlantic, are examples. Either the precise localities have not been revisited, or the supposed discoverers were deceived by the land-like appearance of low clouds and icebergs. A simple incident occurred during Ross' Antarctic expedition. This was the sudden appearance of what seemed to be an island in a spot occupied a few hours before by an iceberg, upward of 100 feet high, the whole of the summit being perfectly free from snow. It seems that the berg had turned over, unperceived from the ships, exposing to view a new surface covered with earth and stones, the mass still slightly oscillating from the effects of the capsize.

MOUNTAINS AND VALLEYS.

48. Mountains, to which we are largely indebted for sublime and savage or beautiful and picturesque scenery, are the higher protuberances of our planet. Those of the first class reach the height of 10,000 feet and upward above the level of the sea, those of the second class ranging between that height and 4,000 feet, and those of the third class from thence to 2,000 feet. The inferior elevations are styled hills and slopes, or are mere undulations of the land.



MOUNTAIN AND VALLEY.

49. The optical impression, made by the elevations of the surface, is that of the earth being an irregular body and not a sphere. But the highest mountain known, rising to 29,002 feet (Gahoorishanka), is only about one 5,000th part of the earth's greatest circumference, and one 1,600th of its axis. A grain less than one twentieth part of an inch in thickness would therefore represent it upon an artificial globe of 21 feet in circumference.

50. Though nothing appears at first sight more arbitrary and unsystematic than the contour of mountains, there is everywhere a certain general correspondence between their external aspect and internal structure. The productions of the animal and vegetable kingdoms vary with the climate, but the mineral masses present everywhere distinctive peculiarities of natural configuration; while blunt cones with craters indicate volcanoes, a series of peaks



CRATER OF VESUVIUS.

like a saw denotes dolomites, a form of magnesian limestone; rounded heads characterize calcareous rocks; triangular points, slates or quartziferous schists; needles, crystalline schists; capacious twistings and crumplings, serpentines and trachytes; pyramidal forms, phonolites; thin and dark-looking walls intimate the presence of basalts or traps, and rocks broken up by exposure into roundish masses are granites or grits.

51. The highest known mountain of the globe is Gahoorishanka, Chingohamari or Mt. Everest, in Asia. It belongs to the Himalaya range, and is situated in the eastern part of Nepaul. Its summit is 29,002 feet above the sea-level. In the same range are Kunchinjinga and Dhawlagiri, both more than 28,000 feet in height, and which were until recently considered the highest mountains of the globe. The loftiest mountains in the other four grand divisions are—in South America, Aconcagua, one of the Chilean Andes, 23,944 feet; in North America, Mt. St. Elias, the culmination of the Coast Range in Russian America, 17,900 feet; in Africa, Mount Kilimandjaro, supposed to be 20,000 feet; and in Europe, Mont Blanc, 15,750 feet. In 1854-5 Hermann and Robert Schlagentweit ascended the Ibi-Gamine, in the Central Himalayas, 22,260 feet in height, that being an altitude never before attained by man in any part of the world.

52. Mountains seldom occur completely free and insulated, that is, on plains remote from other masses. The exceptions are chiefly volcanic, as Mount Egmont in New Zealand. Nor are they often found in groups with



MOUNT EGMONT.

no connection apparent between their bases. The common arrangement is for a series of neighboring mountains to rise into each other, forming parallel ridges, a number of which constitute a grand chain. The central ridge has usually the boldest development and the greatest elevation; and the extremities of a chain are generally low heights, its culminating points being toward the center. Secondary lines of mountains branch off from the main chain at various angles.

53. From its frequent occurrence, it seems to be a general law for chains of mountains to have very steep declivities on one side and gradual slopes on the other. The Andes present a steeper face toward the ocean than toward the mainland of the continent, and the Alps descend much more abruptly toward Italy than toward Switzerland.

54. Chains of mountains, though making many curves and angles, generally correspond in their prevailing direction to the line of greatest length in the continent or district in which they are situated. The chain of the Andes,

prolonged in North America, extends through the longest line of the Western Continent, and the chain which, with only a few breaks, stretches from the southwest coast of Europe to the northeast coast of Asia, comprising the Pyrenees, Alps, Balkans, Taurus, Caucasus, Hindoo-Koosh, Himalayas, etc., traverses the Eastern Continent. The course of secondary chains, as the Apennines in Italy, the Dovre-Field in Scandinavia, the Ghauts in Hindoostan, etc., corresponds with the greatest length of those peninsulas.

55. Chains parallel in their course, or having identity of general direction though remote from each other, being separated by arms of the sea, straits, or valleys, by igneous deposits, secondary or tertiary basins, exhibit correspondence in geological structure. Thus all chains having an eastward direction closely resemble each other in geological constitution; and north and south chains throughout both continents consist of similar ancient and transition formations, igneous deposits, metalliferous veins, and some dependent secondary strata.

56. Those mountain chains which run in the direction of the parallels of latitude or east and west, are found to mark much more striking differences, not only in the fauna and flora of the globe but among nations, than those which follow the direction of the meridians, or a north and south direction. In both Americas, where the meridional direction characterizes all the chief chains, there is only one copper-colored race, although the continent stretches through more climatic zones than Europe and Africa, or than Asia and Australia united. On the other hand, in the Eastern Continent comparatively feeble latitudinal barriers are the sources of great physical and national distinctions.



PASS IN THE ANDES.

57. Chains of mountains are variously intersected by valleys, which form two leading classes, termed longitudinal and transverse, from their position in relation to the course of the main elevations. The longitudinal valleys separate parallel ridges of a chain, and follow its general direction; the transverse valleys cut the ridges at right angles to it.

58. The transverse valleys admit chiefly of high mountain chains being crossed. In such elevated sites they are narrow and frightful gorges styled passes or gates, because of communication being maintained through them. The passes of the Andes and those of the Himalaya are scenes of great magnificence—often of appalling gloom and peril.

59. Both longitudinal and transverse valleys, but more commonly the latter, have very often written upon their sides a plain record of their origin. They exhibit not only a continuation of the same strata, but salient and reentering points so exactly corresponding as to proclaim their formation by the breakage of the general mass during its upheaval. Hence they are styled Valleys of Dislocation. Sometimes there has been upheaval without fracture, but with more effect at particular points, causing intervening depressions, which are termed Valleys of Undulation. Valleys of Denudation are those which appear to have been formed by the action of water upon soft and practicable strata; but there is little doubt that most valleys, from the grand rents of mountain ranges to the wide and gently sweeping hollows of the general surface, are mainly due to internal causes of disturbance—their external physiognomy being subsequently modified by atmospheric and aqueous agencies.



60. A great depression, embracing many thousand square leagues, marks the surface of western Asia, of which the Caspian Sea and Lake Aral form the lowest part, but which extends far into the interior of the continent, and is supposed to be intimately connected with the upheaval of the Caucasus, the Hindoo-Koosh, and the plateau of Persia.

PLATEAUX AND TABLE-LANDS.

61. An extensive mass of elevated land, with comparatively level sites, comes under the denomination of Plateau or Table-land. It may have various undulations of hill and vale, be traversed by mountain ridges, and serve as a platform for lofty peaks. But its prevailing character is that of a highly raised region, on which there is a considerable area of plain surface, the whole presenting either gradual slopes or abrupt acclivities, and sometimes terrace-faced sides, to the adjoining lowlands.

62. The plateau of Bolivia or Upper Peru, remarkable for its elevation, stretches along the top of the main mass of the Andes, between the gigantic mountain knots of Cuzco and Polon north and south, and between the Cordillera Real and the Cordillera of the coast east and west. The serrated ridges and smoking cones of these boundaries rise to nearly double the height of the inclosed area. The territory of which these are the enormous ramparts exhibits a varied surface, and extends longitudinally 500 miles, with a width of from 30 to 60 miles, and comprises an area of 150,000 square miles, upward of twice the size of all New England. Less extensive and elevated is the table-land of Quito, being only 200 by 30 miles, but not less grandly situated and engirdled by magnificent heights—Pichincha, Cotopaxi, Antisana, Cayambi, Chimborazo, rising from 16,000 to 22,000 feet above sea-level.

63. The plateau regions of Central Asia, however, are the most extensive on the face of the globe; but more properly the great upheaval might be considered as forming one vast plateau, comprising different systems of table-lands. Between the chains of the Thian-chan and the Kuen-lun mountains,



TABLE-LAND OF MEXICO.

and stretching from thence in a northeast direction to the extremity of Mongolia, is the vast district called Gobi, Shamo or Han-hai, a "naked desert," a "sea of sand," or "dry sea." Its mean elevation is 4,000 feet, or double that of Spain; for while toward the wall of China it rises to 5,800 feet, it sinks to 2,400 in the central region. The length is given at about 2,000 miles, with a breadth of from 200 to 300 miles. Shingle, yellow sand, and gravel form the surface, mostly overgrown with rank grass, except in the middle, where there is a belt of naked sand 20 miles across, shifting with the wind.

64. The other principal plateaux of the world are those—of Santa Fé de Bogota 8,700 feet above the sea, of Mexico 7,500 feet, of Abyssinia 6,000 and 7,000 feet, of South Africa 6,400 feet, of Popayan 5,760 feet, of Persia 4,000 feet, of Mysore 3,000 feet, and of Spain 2,250 feet. The plateaux of Bogota and Popayan are in the Andes, and surrounded by rocky walls and lofty culminations. The Mexican plateau covers the whole interior of Mexico. In Africa the table-land extends from Abyssinia to the Cape of Good Hope, and probably covers also the greater portion of the continent southward of the equator. The Persian plateau leaves only a very narrow border of lowland along the Persian Gulf, the Indian Ocean, and the Caspian Sea. The whole of India between the Ghauts is one vast table-land.

65. The plateau of Central Asia is walled in to the west by the Bolor chain (Cloudy Mountains), which forms toward the middle the remarkable region of Pamir, a radiating point in the hydrographical system of Asia, long ago correctly described by Marco Polo as a high table-land. This district, locally called Bam-i-duniah, "Roof of the World," is the source of the Oxus, and forms the water-parting between its basin, that of the Indus and other principal rivers.

PLAINS AND LOWLANDS.

66. Plains are discriminated from table-lands by being very little elevated above the sea; in some instances depressed below its level Geographically the term is applied to an extent of country generally level as compared with mountainous districts, however the superficies may gently wave or prominently undulate, be studded with low hills, traversed by valleys, or intersected with deep ravines. In this sense plains constitute by far the greater portion of the earth's surface, and are the sites of its highest culture, greatest cities, and most numerous population.

67. Plains, while possessing certain features in common, have characteristic peculiarities. With a view to illustrate their differences of natural condition they may be considered under their respective local denominations, as landes, heaths, and puszta, steppes, deserts, llanos, selvas, pampas, savannahs or prairies, barrens, and pine-barrens.

68. Plains, for the most part infertile, known by the name of landes, occupy a large portion of northern Germany and to the extremity of Jutland. They are sandy tracts, sometimes entirely naked, but more generally covered with pines or coated with the *erica vulgaris*, which gives them the name of heaths. Fertile districts, swamps, and stagnant pools intermingle with them. In France extensive landes occur between the Gironde and the Pyrenees, vast sandy downs and levels, either wholly barren or clothed with heaths and pines, interspersed with marshes, and at distant intervals with meadows and



LLANO OF SOUTH AMERICA.

cultivated fields. The great plains of the middle Danube, occupying the interior of Hungary, locally called puszta, indicate the country to have once been the bed of an inland sea or lake. They consist of tracts of rich black loam, with districts of deep sand, susceptible of cultivation, but for many miles not a tree, shrub, stone, or living creature is to be seen, the monotony being alone varied by the sand hillocks shifting with the wind.

69. The Russian term "Steppe" is applied to the series of extensive plains which occupy southeastern Europe and northwestern Asia. If the word implies dry and parched, it is only partially applicable to the districts it denotes. The steppes have in fact no uniform character except that of being great lowland levels. Some are richly cultivated, while others are incapable of cultivation from various causes, either an excess of moisture or of drouth or the abundance of salt. Some are barren sands; others are studded with low saline plants; others are covered with plants of the families of the compositæ and leguminosæ, and others have a luxuriant gramineous clothing, woods intermingling with the pasture lands.

70. The tracts of bare sand, gravel, rocky slates, flints, and silicious stones, which form deserts, properly so called, condemned to eternal sterility, though not unknown in the New World, are so predominant in the Old as to form a marked distinction between the two regions. They stretch in a nearly continuous zone of almost irretrievable desolation from the Atlantic Ocean through the north of Africa, and through central Asia toward the Pacific. Depressions of varying extent occur, called oases, where there are wells and springs, nourishing groves of date-trees, acacias, ferns, and grasses—fertile spots which serve as resting-places to the caravans that traverse the wilderness.



TRAVELING IN THE DESERT.

71. In South America a sandy desert called the Gran Chaco occurs west of the river Paraguay; a true salt desert under the name of Las Salinas also lies farther west, and a shingle desert extends for 800 miles through eastern Patagonia. In North America, at the head of the affluents of the Missouri, a large tract of rock, sand, and gravel has received the name of the American Desert; and a large portion of the great California basin is a sandy region without any outlet to the ocean for the few streams which, coming from the hills, are lost in their courses or in small lakes. But the Old World is emphatically the region of deserts, which occupy an extent of its surface considerably exceeding the whole superficies of Europe.

72. The plains of Venezuela and New Granada in South America, chiefly on the left of the Orinoco, are termed llanos or level fields. Often in the space of hundreds of square miles the surface does not vary a single foot A gentle wind or a slight rise of the great river reverses the current of its tributaries. These plains are studded here and there with solitary palms, and undergo remarkable changes in appearance. In the wet season they are inundated for hundreds of miles; afterward, upon the subsidence of the waters, they are clothed with beautifully green verdure; and when the season of drouth returns, the grass crumbles into dust, and a dismal desert meets the eye.

73. The plains of the Amazon, called Selvas or forests, form another division of the South American lowlands, covered with primeval woods, interspersed with clear grassy spaces and marsh lands. This zone of woods is estimated to comprise upward of 2,000,000 square miles, of which at least one half is woodland, the remainder being occupied by the waters and the open tracts.

74. The Indian term Pampas, signifying flats, designates the third great region of South America. It extends about 1,800 miles south from the selvas, and from the Atlantic Ocean to the foot of the Andes; and consists of treeless plains, which are in some instances sandy or saline wastes, but mostly immense beds of alluvium, covered with a strong growth of tall grass, lucern, thistles, and gaudy flowers, presenting also vast lagoons and swamps.



PRAIRIE SCENE IN NORTH AMERICA.

75. The central part of North America, from the Gulf of Mexico to the Arctic Ocean, may be called a continuous plain. In the southern part of this tract on both sides of the Mississippi, but principally on the west, the Savannahs or prairies occur, apparently boundless meadows. Some of these are heathy or bushy prairies, where there are springs nourishing, besides grass, small shrubs, grapevines, and an infinite variety of flowers. Dry prairies, the most common, have neither wood nor water, and no vegetation but grass, weeds, and flowers. These are also called rolling prairies, from their wavy surface. Other prairies are moist and well-watered, abounding in pools without issue, left by the floodings of the rainy season, and producing tall, rank grass.

76. The Barrens or barren grounds, near the Alleghany and Rocky Mountains, resemble the prairies in being grassy and treeless, but are more elevated and dry. The pine barrens, situated on the south coast of the United States, and also in the interior, are monotonous tracts of sand covered with gigantic pine-trees.

FISSURES AND CAVERNS.

77. Deep narrow fissures, yawning chasms, and great chambered cavities, common in mountainous districts, are either monuments of the violent action that has shaped the external envelope of the earth, or of the extensive changes produced by slow erosion operating through long ages.

THE WORLD

Illustrating the principal features of

THE LAND AND THE CO-TIDAL LINES.

The light Curved lines crossing the water are Co-tidal lines, and the Roman Numerals attached, represent the Hour of high water at New & Full Moon along their course.

The strong Black lines represent the mountain ranges their relative hight is indicated by the strength of the line.

Sandy or Stony Deserts are represented thus

Prairies, Savannahs, Llanos, Pampas & Steppes

The Selvas or Forest plains of the Amazon

The Tundra or Marshy plains of Northern Siberia

LIST OF TABLE LANDS OR PLATEAUS.

Mongolia, highest parts about	4000 feet above sea.	Norway & Sweden (Spart)	4,000 feet above sea.
Tibet	12,000	Bavaria (Central Germany)	1,600
Pamer	15,000	Spain	2,000
Deccan	2,000	Scotland (S. & W. parts of)	1,000
Afghanistan & Persia	6,000	Arctic America (part of)	
Armenia	6,000	Chihuahua	5,000
Asia Minor	4,000	Mexico	9,000
Arabia		Central America (Guatemala)	10,000
Abyssinia	6,000	Quito	9,000
Great Karroo (S. Africa)	3,000	Titicaca	11,000
		Potosi or Titicaca	13,000

PLAINS OR LOWLANDS.

Siberia.	Europe (North eastern part)
China (S E part).	Hungary.
Siam.	Interior of North America from Gulf of Mexico to Arctic Ocean.
Hindoostan.	
Turkestan.	
Irak-Arabi.	Interior of South America embracing Vallies of the Orinoco, Amazon & La Plata.
Lower Egypt.	
Soudan or Negroland.	
Europe (Eastern part).	

Entered according to Act of Congress in the Year 1850 by J.H. Colton & Co. in the Clerks Office of the District Court of the United States for the Southern District of New York.

THE WORLD

Showing the principal

OCEAN CURRENTS & Boundaries of RIVER SYSTEMS.

The Arrows show the general direction of the Currents: those with points at each end indicate currents which alternate in direction with the seasons.

The Dotted lines upon the land, mark the boundaries between the different River-Basins.

Entered according to Act of Congress in the Year 1850 by J.H. Colton & Co. in the Clerks Office of the District Court of the United States for the Southern District of New York

78. Clefts are frequently the beds of streams, sometimes arched over by a portion of the rock which was not rent by the convulsions that seem to have produced the fissures, forming a kind of natural bridge. At Iconozo in South America, on the route from Santa Fé de Bogota to Popayan, a chasm of immense profundity is crossed by a natural arch 48 feet in length, 39 feet in breadth, and 318 feet above the stream Summa Paz, which passes through it. Sixty-four feet below this bridge there is a second composed of dislodged masses of rock, which have so fallen as to support each other. The dark abyss below is haunted by nocturnal birds, whose doleful cries increase the frightfulness of the spot. Another celebrated curiosity of this kind is the natural bridge that passes over Cedar Creek, in Virginia, at the height of 210 feet above the water.

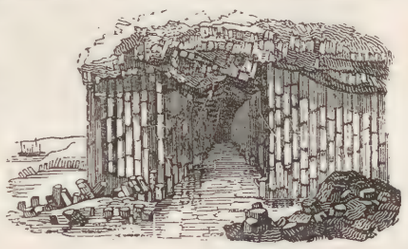


NATURAL BRIDGE, VIRGINIA.

79. Caverns, properly so called, are perforations open to the daylight at one extremity, with lateral entrances on the sides of mountains, either presenting a single vacuity or a series of spacious chambers, connected by narrow winding passages, which often descend far below the level of the entrance.

80. True caverns are not found in the older rocks, granite, gneiss, and slate, but vertical fissures of unknown depth are not uncommon. Grand examples of cavern construction occur in ancient and modern volcanic masses. It marks also the gypsum of the new red sandstone system and the sandstone, but is so characteristic of the mountain limestone that the rock is sometimes called "cavern limestone."

81. From the beds of hard mud which forms the floors of many dry caverns and the streams that still run through others, it may be inferred that such cavities are due, at least to some extent, to the solvent and mechanical power of water.



FINGAL'S CAVE, SCOTLAND.

82. Fissures of rocks occur containing osseous breccia (a mixture of red loam, pieces of stone, and bones), and ossiferous caves, in which, buried in mud or covered with calcareous deposits, the separated bones of extinct species of quadrupeds have been found perfectly preserved, but in various conditions, water-worn and gnawed.

83. The temperature of caverns, where the roofs are massive and the openings narrow, shows little diversity, being below that of the mean of the surrounding atmosphere; but there are some which exhibit the apparent anomaly of being coated with ice in summer which melts in winter. The summer freezing in these moist caverns may be referred to evaporation withdrawing the warmth from the inclosed air and producing a degree of cold below the freezing-point.

84. Some caves, situated in volcanic regions, exhale hot and sulphurous vapors, and others are remarkable for the development of irrespirable gas.



MAMMOTH CAVE, KENTUCKY.

85. Wind caverns are inexplicable phenomena. — From a blowing cave in the Alleghany Mountains a hundred feet in diameter, the current of air is so strong as to keep the weeds prostrate to the distance of sixty feet from its mouth. But the most extraordinary example is the great cavern of Ouybe, of unknown extent, in Central Asia. The tempests that rush from it are sometimes so violent as to carry off everything on the road, and throw them into an adjoining lake. The wind coming from the interior of the earth is said to be warm in winter, and so dangerous that caravans often stop for a whole week till the tempests have subsided.

GLACIAL FORMATIONS.

86. In high northern and southern latitudes, and in certain elevations in all latitudes, snow and ice occur on the surface of the globe as a permanent envelope. The causes of this physical condition, with its details, are reserved for the meteorological section, but some general remarks will here be expedient. In countries which are immediately polar, even on sites that are at the sea-level, snow is permanent, but at a much lower latitude in the southern than in the northern hemisphere. Receding from the poles toward the temperate zones it maintains firm hold of comparatively inferior elevations, while totally disappearing from the lowlands before the temperature of summer. Equidistant from the poles and equator, or in latitude 50, it is only permanent on mountains of considerable altitude, the lowest limit being about 8,500 feet. In equatorial districts the lowest limit of permanence rises to about 16,000 feet.

87. Apart from the region immediately polar, the principal fields of permanent snow are: in Europe, the Scandinavian Mountains, the Alps, and the Pyrenees; in Asia, the Caucasus, the Himalaya (abode of snow), Kuen-lun, and Altai chains; in Africa, the Greater Atlas range; and in America, the Andes and higher parts of the Rocky Mountains, and the Coast Range. Iceland, in the North Atlantic, is also within the region of permanent snow.

88. The snows accumulated on the tops and steep acclivities of mountains are frequently precipitated by their own weight into the adjacent valleys, rooting up forests in their course, tearing away fragments of rock, filling up the beds of streams, converting them into fresh channels, occasioning destructive floods, and sometimes burying men, cattle, and whole villages fathoms



SNOWY REGIONS OF THE ALPS.

deep beneath the mass. The volume put in motion in the first instance may be small; but, dislodged at a high elevation, it increases as it descends to a prodigious magnitude by forcing off other masses in its path. These avalanches are not merely fatal to life and property immediately in their way, but the air, suddenly compressed by the velocity of their descent, rushes off with the force of a tornado, and plays havoc with every object in the vicinity.

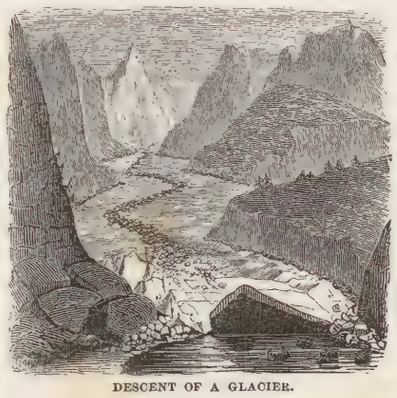
89. Glaciers, masses of true ice, are remarkable appendages of the snow-fields, as intimately related to them as a stream to a spring or as an icicle to a snow-covered roof. Their external aspect is that of a frozen torrent depending upon the flanks of mountains and extending from the higher summits into the lower valleys. Originating in the regions of eternal frosts they descend below the line of perpetual snow to the warm cultivated grounds, where, though continually wasted, they are never destroyed, being constantly replenished from the icy world above.

90. The size of glaciers sometimes amounts to 15 and 20 miles in length and 3 miles in breadth; the thickness at the lower end varying from 80 to 100 feet. Their extent obviously depends upon the extent of the snow-fields of which they are offsets, and on the size and slope of the subjacent valleys. The larger masses exhibit a steep ascent at the lower extremity; they then slope gently with a surface more or less broken and undulating, and again become highly inclined toward the surface.

91. The general contour of glaciers is either canal-shaped, oval-shaped, or basin-shaped, according to the form of the valleys into which they protrude. The ice, when viewed in small pieces, is commonly white, like river-ice; but that of the entire mass exhibits every variety of blue tinge, from the slightest cerulean to the deep hue of the lapis lazuli. The blue frequently passing into green is the deepest in the crevasses. No language can describe the beautiful effect of the different blue and green tints contrasting with the pure white snow at a higher level.

92. The descending march of glaciers, imperceptible to the eye, is evident from the permanence of the masses, though in the act of constant dissolution; but direct proofs of this progress have been accumulated in abundance, and the rate of motion has been ascertained. Experiment has demonstrated their constant and certain motion, and not by fits and starts, though with variations as to the rate, which depend upon the seasons; thawing weather and a wet state of the ice conducing to its advancement, while cold, whether sudden and prolonged, checks its progress. The movement is the fastest in summer, by day and during great heats; the slowest in winter, by night and during severe frosts.

93. The most recent theory to explain glacial motion, that of Prof. Forbes, is the best supported. Stiff and altogether rigid as the mass appears, he conceives, from careful observation of the interior structure and other circumstances, a glacier to be an imperfect fluid or a viscous body, which is urged down slopes of a certain inclination by the mutual pressure of its parts. He compares it to a thick mortar or the contents of a tar-barrel poured into a sloping channel, the central parts of which would move faster than the outer edges. Bold and startling as this hypothesis appears, it best answers to observed phenomena, and seems the more probable the more it is examined.



DESCENT OF A GLACIER.

94. Glaciers by their motion break off masses of rocks from the sides and bottoms of their valley courses, and crowd along everything that is movable, so as to form large accumulations of debris in front and along their sides. The edges also receive the huge fragments variously shattered by their fall, that are disintegrated by atmospheric causes; a process going on to a great extent in elevated regions. These superficial accumulations are called moraines.

95. The base of glaciers, usually thickly set with fragments of rock, pebbles, and coarse sand firmly frozen into the icy mass, acts as a huge rasp to the underlying mass, scratching and striating their surfaces in moving over them; or as a smoothing and polishing instrument, if the earthy materials in the ice are finely comminuted.

96. The preceding facts are of great interest and importance in a geological point of view. They have been adduced to explain the phenomena of erratic blocks of smoothed, striated, and crushed surfaces, which appear both contiguous to and far remote from the region of existing glaciers.

97. Existing glaciers occur largely in Spitzbergen and in Greenland, where, descending to the sea-level, detached masses constitute the icebergs of the Arctic Ocean, and are drifted into the Atlantic. They are not known in South America within the tropics, though the Andes rise far above the snow-line. This is owing to the excessive steepness of the peaks, a feature unfavorable to their formation; but they appear in southern Chile and Patagonia. In Asia they are found on the northern side of the Himalayas, and in the Kuen-lun, Thian-chan, and Altai. Their existence in the Caucasus and Ural Mountains is uncertain. In Europe they occur scantily in the Pyrenees, largely in Norway, but principally in the Alps, where, independent of the Grisons, the area of the ice is estimated at 1,500 square miles, from 80 to 600 feet in thickness.

VOLCANOES.

98. The term Volcano denotes a peculiar class of mountains emitting from their summits or sides molten mineral masses, with columns of flame, smoke, and ashes. A conical figure, with a cauldron-like hollow at the summit, denominated the crater or cup, is their general physiognomy.

99. Volcanic mountains are either continuously active or intermittent or extinct. The frequency of eruptions with their character appears to have a marked relation to their height. Stromboli, a comparatively low mound, has been uninterruptedly active from the dawn of authentic history, a permanent fiery beacon to the sailors of the adjoining seas, but very rarely violent. The lofty cones Etna, Peak of Teneriffe, Tunguragua, and Cotopaxi have on the contrary varying intervals of rest, in some instances amounting to centuries. Extinct volcanoes are those which have plainly once been the outlet of fire and igneous products, but whose activity has for ages been suspended. Some of these may really belong to the intermittent class now experiencing a long fit of dormancy.



MOUNT VESUVIUS.

100. By far the greater number of volcanic vents are situated in close proximity to the sea, either in islands, in chasms, more or less on the coast, or at the foot of such chasms. This fact, in connection with the occurrence of submarine eruptions, has often been cited in behalf of the chemical theory of volcanoes, or the hypotheses of subterranean oxydation, which refers them to the infiltration of the waters of the sea into ravines containing incandescent materials which form the fuel of eruptions. There are, however, important exceptions to the proximity of volcanoes to the sea or to any sheet of water—some in the New World, but the most remarkable in Asia.

101. Of all the postulates for a general theory of volcanoes, the simplest and best founded, supported by the temperature of the earth increasing with



POPOCATAPETL.

the depth in every parallel of latitude, and by the great extent of rock once fused beneath our feet, is the igneous fluidity of the interior of our planet, a

vast sea of melted rock underlying the cooled and solidified crust which may remain at rest for ages beneath enormous areas, but is liable to be locally excited and uplifted by the force of compressed vapor. Volcanic vents remind us in this view of intermittent springs.

102. Volcanoes may be characteristically distributed into the two great classes of central and linear systems. A central system consists of several vents grouped around a principal cone, which serves for a common point of eruption, as those of the isles of Palma, Lancerote, and Gran Canaria in relation to the Peak of Teneriffe; or they are arranged in an expanded area, as in Iceland. A linear system consists of several vents extending in one direction at no great distance from one another, apparently the apertures of some great longitudinal fissure, as volcanoes of America and the Asiatic isles.

103. Among the specialties of volcanic action may be enumerated eruptions of mud, the fires of Bakou, the fire-hills and fire-springs of China, and the geysers of Iceland.



THE GEYSERS OF ICELAND.

EARTHQUAKES.

104. Earthquakes and volcanic eruptions are undoubtedly phases of the same phenomena. The concussions so named are by far the most frequent and violent in countries which surround or lie between volcanic districts, but the shocks are most severe in places distant from active volcanic sites, the vents of the latter acting as a kind of safety-valve to the elastic force which, when pent up, agitates the crust of the earth in effecting disengagement.

105. No phenomena are so terrible in their effects or so fatal to life as earthquakes. The volcano gives timely notice of an explosion; but the earthquake commences without the slightest warning; shocks follow in quick succession, and almost at the same instant a vast extent of country is involved in disaster from the oscillation.

106. The movements of the ground during an earthquake are described as consisting of a series of tremulous vertical, horizontal, or rotary vibrations, rapidly following each other, sometimes occurring singly or taking place together. They are either linear as to the direction of the concussions, or the shocks are propagated in circles and great ellipses, gradually decreasing in intensity with the distance from the focal points.



ROCK FISSURE.

107. The phenomena of earthquakes comprise the permanent displacement of large areas of land by elevation and subsidence, the opening of extensive fissures, great oceanic waves, and a train of varying incidents dependent upon the sites and strength of the concussions.

108. Though unable to trace the intimate connection of earthquakes, volcanoes, thermal and hot springs, the disengagement of mephitic vapors, steam, and inflammable gas, it is impossible to doubt their direct relationship and mutual dependence upon one grand phenomenon—a prevailing high temperature in the interior of the earth at an unknown depth below the surface. Thermometrical experiments made in mines show that at a certain depth the thermometer rises and goes on rising proportionally as the depth increases.

LAND SLIPS AND GRADUAL DISPLACEMENTS.

109. The dislodgment of mountain masses which fall a heap of ruins into the subjacent valleys, or simply slide to a lower level without entire derangement, is not uncommon with certain stratified formations of a loose and solvent texture. Though the work of a few moments as to the proper catastrophe, the preparing process for the event extends through a series of ages. It is in general due to the solvent power of water percolating by rents and fissures to a stratum of soft sandstone, limestone, or conglomerate, the base of other strata, and gradually carrying away its material.

110. In addition to examples of permanent displacements of land arising from convulsive movements, certain districts appear to be subject to slow elevation or subsidence or to both alternately.

111. On the coast of Norway, from the Naze to the North Cape, and on that of Sweden, along the whole west shore of the Gulf of Bothnia, raised beaches, former sea margins (100, 200, and even 600 feet above the present level of the ocean), chronicle a process of elevation which is still going on at an estimated rate of four feet in the course of a century, the maximum of the upheaving power lying in north Lapland, and gradually falling off toward the south. On the contrary, south Sweden is sinking. West Greenland also exhibits gradual depression.

112. Raised beaches and submarine forests, the monuments of elevation and of subsidence, occur more or less in all maritime countries, although in historic times these may not have been visited by violent earthquakes, and are far from the vents of igneous activity; and there is reason for the general conclusion that while certain parts of the crust of the earth are subject to paroxysmal disturbances, it undergoes gradual expansion and contraction also—in some cases both alternately; the whole phenomena depending mainly upon different conditions of interior temperature.

THE WATER AND ITS PHENOMENA.



WATER, one of the most important and abundant substances in nature, is found in each of the three forms which bodies are capable of assuming — vaporous, fluid, and solid. Water is essentially a compound of two gases, hydrogen and oxygen, in the proportion of one part of the former to eight parts of the latter. It seldom, however, occurs in a state of perfect purity, but variously impregnated.

114. The water of wells, rivers, springs, marshes, and lakes is for the most part fresh, containing no appreciable amount of saline matter. A fluid covering of this description composes a large portion of North America, its lakes comprising more than half the amount of fresh water on the face of the earth.

115. The whole amount of fresh water compared with the whole aqueous portion of our planet is utterly insignificant. The universal ocean is salt. In their density or amount of saline impregnation the waters of the ocean vary in different zones. Those of the southern hemisphere exceed those of the northern in saltness, while those of the Atlantic are in excess of those of the Pacific. At the equator and at the poles the density is also inferior, arising from the copious equatorial rains and the melting of the polar ice; and at the same point of the ocean the density is least at the surface, owing to the rains. The fresh water is the lighter, and slowly commingles with the salt water. At the mouths of great rivers the same phenomenon is observed, and inland seas which receive rivers are commonly less salt than the main ocean. The Mediterranean, however, is an exception; its waters are four times salter than those of the Atlantic—a fact attributable to excessive evaporation.

116. The origin of the saline quality of oceanic water is a physical question involved in obscurity. We merely know that various salts and immense masses of rock-salt are constituent parts of the terraqueous system, a large quantity of which has come in contact with the ocean and been dissolved by its waters. The saline ingredients render sea-water more buoyant than fresh and consequently better adapted for navigation, while a larger area is preserved from being ice-bound.

117. Besides the ocean, salt water has an extensive distribution on land, in lakes and springs, the salts occurring in a far more concentrated state than in the sea. They are common in America, Europe, and Africa, but the table-lands of western and central Asia with the adjoining steppes constitute the great salt water lake district of the globe.

118. Water appears in other mineralized forms in many localities, constituting acidulous, chalybeate, sulphureous, and silicious springs, some of which are known to have preserved their peculiar character from very early historic times. Acidulous springs are found at Carlsbad, Seltzer, Spa, and Pyrmont; Chalybeate in most iron regions; Sulphureous at Saratoga, in Virginia, at Aix-la-Chapelle, Harrowgate, etc., and silicious in Iceland, India etc.

119. Water appears at the surface of the globe at every temperature, from the freezing to the boiling point. The mean temperature of ordinary springs is lower than that of the atmosphere of the place where they occur, if the water is derived from high-lying levels, as is commonly the case; but if it has penetrated deep into the earth it acquires a temperature from that circumstance which increases with the depth.

120. Thermal or hot waters issue from great depths to which they have descended from the surface, and from which they are returned by hydrostatic pressure, variously affected by differing contact with the heated rocks of the interior. The hottest permanent springs known are those of the Fejee Islands, which, according to Wilkes, have a temperature of 200° to 210° Fahr. Those of Bath, in England, never exceed 117°. The Hot Springs in Bath County, Va., have a temperature of only 106°, and those of Arkansas a temperature of 110° to 150° Fahr.

121. The mean temperature of the ocean at the surface diminishes from within the tropics as the latitude increases. Banks diminish the temperature of the sea, and the difference is the greater the greater the shallow. The oceanic warmth-equator, however, does not coincide with the geographical equator, but runs, for the most part, on the north of it, the ocean in the northern hemisphere being warmer than in the southern. At one point in the Gulf of Mexico the line of the greatest heat is situated in 28° north latitude.

122. The waters of the globe exhibit various hues, which depend on a variety of circumstances. The ocean absorbs all the prismatic colors except that of ultramarine, which is reflected in every direction. This is its true color in general when seen apart from atmospheric influence, modified by depth; but every gleam of sunshine, passing clouds, winds, shoals, and sand-banks affect its tints. Particular parts of the ocean show peculiar colors. The sea is white in the Gulf of Guinea, and black amid the Maldive Islands. Variously purple, red, and rose-colored waters occur in the higher parts of the Mediterranean, in the Vermilion Sea or Gulf of California, the Red Sea, and in tracts along the coasts of Chile, Brazil, and Australia. Green water appears in the Persian Gulf, off the Arabian coast, and in connection with the deepest blue of the Arctic Ocean. These tints are occasioned by differently colored animalcules, which swarm in countless myriads in the tracts in question.

123. The phosphorescence of the ocean, a magnificent and imposing spectacle, when the waves scintillate with bright green sparks, or exhibit a long line of fire flashing in a thousand directions, is mainly caused by minute organic beings which are phosphorescent while alive, a property retained by the gelatinous particles with which certain tracts of the deep are thickly charged—their dead and dismembered relics. At the same time a disturbed electrical condition of the atmosphere may be most favorable to the existence of the phenomenon.

124. Lake waters in mountain districts are frequently very transparent and of the finest azure hue, like the Lake of Geneva and the Great Bear Lake; others are intensely green, as the Lake of Zug, and others are of various hues and shade. These all depend on impregnation. River waters exhibit a similar diversity, and from the same causes; and the different hues may, in the case of shallow waters, depend on the character of their beds.

SPRINGS.

125. The rains and melted snows are partly drained from the surface of high ground into rills and streams, or returned again to the atmosphere by evaporation, or devoted to the purposes of animal and vegetable life. But a large portion is received into the soil by minute absorption or percolates through cracks and fissures in the rocks, pursuing a downward course till arrested by clays and impermeable strata, when the water accumulates and is forced by hydrostatic pressure to find its way again to the surface, occasioning the phenomena of natural springs. Artificial springs, called Artesian wells, from the province of Artois, in France, the ancient Artesium, where they have long been in use, are constructed upon the principle of the natural.

126. Some springs are perennial and constant, discharging a great volume of water, and a few show no diminution in the seasons of longest drouth. These are quite independent of the last showers that fall, through primarily derived from rain and melted snow, which originate bodies of water in subterranean reservoirs so vast as not to be exhausted before they are replenished.

127. Other springs are intermittent, depending entirely upon the prevailing character of the seasons. They gush abundantly after heavy rains, flow feebly, and consequently fail in continued dry weather. Reciprocating springs, or those which ebb and flow at short intervals, with somewhat of a character of periodicity, are rare; but to this class belong the Ebbing and Flowing Well of the Peak, and the far-famed Pool of Siloam. These operate on the principle of the syphon, the flow taking place only while the water of the reservoir is raised to the vertex of the arch, and ceasing when the supply fails and until renewed.

128. Rivers have their origin in springs, a number of which commonly unite their waters to form a stream, so that it is difficult to single out the head fountain; or they flow from lakes, or have their source in the melting of glaciers, ice, and snow. They are important auxiliaries to civilization as means of communication between inland nations, and channels of commerce, rendered vastly more efficient since the discovery of steam navigation, which overcoming the power of the current admits of the most rapid floods being readily ascended.

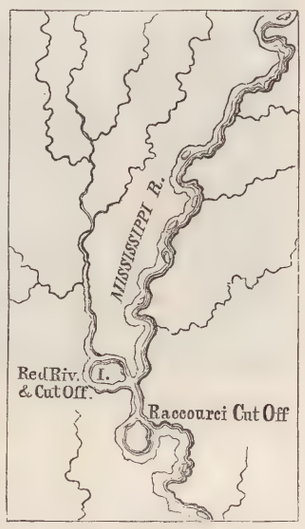
RIVERS.

129. Rivers are either oceanic or continental. Oceanic rivers are those which flow into the sea. The Arctic Ocean receives several grand contributions, the Obi, Yenesei, and Lena from Asia, and the Mackenzie from America, rivers of the first class, but impaired in their utility by their lower courses being almost constantly encumbered with ice. The Indian Ocean has principal rivers in the Ganges, Brahmaputra, Irawady, Indus, and Euphrates, and the Pacific Ocean has the Columbia and Colorado from America, and the Amour, Yang-tse-kiang, Hoang-ho, etc., from Asia. But the Atlantic receives the mightiest rivers in the globe—from America, the St. Lawrence, Mississippi, Orinoco, Amazon and La Plata; all the leading rivers of Europe except the Dwina, and the Nile, Senegal, and Niger from Africa. Continental rivers are those which never reach the ocean, but disembogue in lakes that are unconnected with it, or are absorbed and lost in sandy deserts. There are many instances of these in the deserts of Utah, and in the more extensive desert tracts of Asia and Africa.



RIVER SCENE, UPPER MISSISSIPPI.

130. The hydrographical region of a principal river or its basin includes, besides the bed actually occupied by the water, the whole of the declivities from which its tributaries descend, or the entire country drained, which is defined by an imaginary line passing through the sources of its feeders. Each affluent and each rill flowing into it has a basin peculiar to itself, defined in the same manner, their united areas constituting the basin of the grand stream. The greatest river basins are in America; the least in Europe.



WINDINGS OF THE MISSISSIPPI.

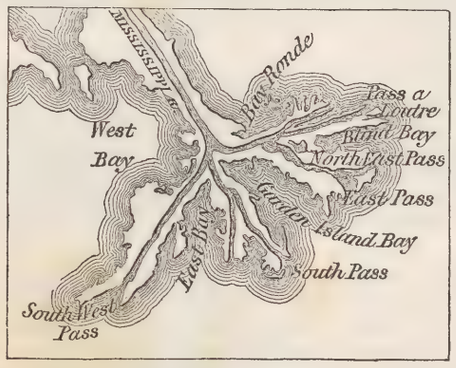
131. The country which divides one basin from another is called the water-parting or watershed, the drainage from thence being in different directions, of which the ridge of a house-roof affords a rough illustration. This is sometimes a lofty range of mountains; but very commonly a water-parting has no great elevation, a slight convexity sufficing to separate one river basin from another or produce distinct systems of drainage.

132. Where the water-partings are low, rivers are largely united in civilized countries by canals, promoting navigation; or as in America, boats and barges are carried over the intervening portage. But there are examples of river basins so running into each other as for water communication to subsist naturally between two primary streams. The most remarkable instance of this kind is the canal of Cassiquiare, which connects the basins of the Orinoco and Amazon.

133. The course of rivers is in general very tortuous—an apparent disadvantage, as it increases the time necessary for their navigation; but hereby a larger area is furnished with means of intercommunication, and that velocity of the current prevented, which would greatly impede or render navigation altogether impracticable.

134. The form of the channel, the slope of the bed, and the volume of water are the elements upon which the velocity of rivers depends. If the banks offered no obstruction, and the molecules of water were not checked by friction with the sides and bottoms of the bed, the accelerating force of gravity would convert gently flowing streams into irresistible torrents perfectly impassable from opposite banks.

135. The alluvial soil transported by great streams is gradually deposited as the current slackens. When the coasts are flat, and the quantity of solid matter brought down is considerable, deltas are formed at their mouths (called



MOUTHS OF THE MISSISSIPPI.

after their resemblance to the Greek letter Δ), consisting of river deposits silently accumulating through ages, and cutting up the main stream into branches. The Ganges, the Nile, the Mississippi and others have large deltas. They are also formed in the same manner, but upon a smaller scale, at the junction of an affluent with its primary, and of a river with a lake.

136. Many rivers have no deltoid formations, owing to not traversing alluvial plains, or to lofty coasts lying around their confluence with the ocean, or strong lateral sea-currents bearing off the sediment to distant parts of its own bed. They empty themselves by a single channel, broad, deep, and unobstructed. This circumstance gives importance to many rivers of inferior order, as the Hudson, the Tagus, and the Thames.

137. Rivers are subject to changes of level, which are either irregular or periodical, according to the nature of the producing cause. The irregular alterations are the effect of casual heavy rains, which temporarily convert insignificant streams into vast floods. A strong opposing wind will also dam up a river so as to materially elevate its surface The St. Lawrence, which is alike unaffected in its level by rains or drouth, is raised by an easterly wind, and thus also a strong wind blowing from the Gulf of Finland acts as a dam to the Neva.

138. Periodical changes in the level of rivers are diurnal, semi-annual, and annual. The daily changes are the result of the tides. The semi-annual and annual variations distinguish the rivers of tropical regions, and are the effect of seasonal changes which occur at exactly opposite periods north and south of the equator.

139. A slope of one foot in 200 in the bed of a river renders it unnavigable; a greater inclination produces a rapid; and one still greater, approaching the perpendicular, a cataract. Rapids occur in most principal rivers, the navigation being carried on by the transport of barges along the banks, or by artificial canals, but in some instances they are surmounted, as in case of the Rapid of Richelieu in the St. Lawrence, by aid of the tide. Cataracts exhibit either the singular perpendicular descent of a mass of water or a series of descents, according as the change from a higher to a lower level is effected at once or by several precipices. They depend for their sublimity upon the height of the falls, but mainly upon the magnitude of the volume of water.

140. Rivers depend for their magnitude upon various elements, the length of their course, the extent of their basins, the rain-producing character of the climate, and connection with mountains covered with eternal snow. The Mississippi, following the Missouri branch, which ought to be the name of the united streams, has the longest course of any river of the globe; but the Amazon stands at the head of rivers, draining by far the largest area of country, and rolling the greatest volume of water to the ocean.



FALLS OF ST. ANTHONY.

141. Some peculiarities of rivers remain yet to be noticed. The effect of the junction of two great streams is not always an expansion of surface, but sometimes a contraction, the depth of the channel and the velocity of its current being increased. The Mississippi is upward of a mile, and the Missouri half a mile wide at their confluence, but from thence to the mouth of the Ohio the medium width of the united waters is only three fourths of a mile. The Nile is remarkable for not receiving a single branch between its junction with the Tecazze and the Mediterranean, a distance of 1,500 miles—a fact without parallel elsewhere. Some rivers temporarily disappear in swamps and underground channels, having in the latter case in many instances scooped their way through obstructing rocks. The Rhone, soon after coming within the French frontier, has a subterranean course for about a quarter of a mile, and the Guadiana is lost for about seven leagues in sandy and marshy grounds. Powerful streams, meeting with strong oceanic currents and tides, frequently occasion a violent disturbance of the waters, as the effect of the collision and strife for the mastery. When the tide ebbs in the Amazon, the river pours forth its liberated flood with increased force and velocity, and meeting nearly at right angles with the sea-current from Cape San Roque, an enormous wave is created, the "prororoca" of the Indians, from the agitation of which fishermen and navigators fly in dismay. A similar phenomenon occurs at the embouchure of the Garonne, and a like cause forms the terrific "bore" of the Hooghly off the mouth of the Ganges.

LAKES.

142. The inland waters which pass under the denomination of "Lakes" are most numerous, as well as upon the largest scale, in the high northern latitudes. Some expanses, lifeless and in general small, occupy the highest mountain passes; larger sheets are found on the lower table-lands; but the most extensive are on the great plains of the globe. A space of nearly 17,000 feet extends between the highest, the Sir-i-kol, and the lowest, the Dead Sea.



LAKE OF KILLARNEY.

143. Four great systems of lakes are traceable: two in the Old World and two in the New—the latter the grandest of all.

A system of lakes, commencing in Great Britain, extends through Norway and Sweden along the south coast of the Baltic, through Finland, north Russia, north Siberia to Behring's Strait. The most important lakes of this system are Saimas in Finland, Wener in Sweden, Onega and Ladoga in Russia.

A second system extends principally north of the mountain spine of the Old World, and includes the lakes of the Pyrenees, Alps, Apennines, Bavaria and Austria, and western and central Asia. The Caspian Sea, the largest lake of the globe, belongs to this band, and also lakes Aral and Baikal.

A third system comprises the great North American masses of fresh water, with their dependencies, which are continuous, connected by rivers—Superior, Huron, Michigan, Erie, and Ontario. The different levels of these lakes mark the descent of the country and the inclination of the connecting rivers. The surface of Lake Superior is 627 feet above the level of the sea;



LAKE NICARAGUA.

lakes Huron and Michigan, 595 feet; Lake Erie, 565 feet, and Lake Ontario, 230 feet.

A fourth system, northwest of the third, extends from the Lake of the Woods to the icy shores of the Arctic Ocean, including lakes Winnipeg, Arthabaska, Great Slave, and Great Bear.

Independent of these systems, there are vast numbers of lakes in both North and South America; some of considerable extent occur in Africa; others in China, as the celebrated "Mer des Etoiles" or Sea of Stars—the mysterious sources of the Hoang-ho.

144. Water of lakes is derived either from rivers or sub-aqueous springs. They are for the most part affected by seasonal changes, in some instances spreading out into extensive inundations, followed by corresponding reduction of surface. The depth of lakes varies from a few feet to probably 3,000 feet. It affords a striking instance of deep indentation in the solid matter



THE DEAD SEA.

of the globe, that while the surface of the Caspian Sea is 83 feet below that of the Black Sea, its bed at one place near the middle descends upward of 2,800 feet below that level, or has a total depression of 2,883 feet below the level of the ocean. It also appears that while the surface of Lake Superior is 627 feet above that of the Atlantic, its bed descends 573 feet below it; while Lake Ontario, with a surface elevation of 231 feet, descends in its bed upward of 1,569 feet below its level.

145. A four-fold classification may be made of lakes founded upon their physical differences. Some have no apparent affluents or outlets; such commonly occupy hollows, extinct volcanic craters, and depend on sub-aqueous springs to supply the waste occasioned by evaporation. Others have outlets, but no apparent affluents, deriving their supplies from subterranean sources. A third class have both affluents and outlets—the common arrangement—and a fourth class receive affluents, but have no outlets. Lakes of the last-named class are rare, but the great inland salt waters of the Caspian, Lake Aral, and the Dead Sea belong to it. Their waters are carried off by evaporation.

146. Some lakes exhibit the phenomena of floating islands, anomalous undulations, and other striking peculiarities. The Lake Zurich is distinguished annually by the appearance of a very minute vegetation upon its surface, exhibiting what is called the flowering of the waters.

THE OCEAN.

147. The waters which continuously environ the continental and island masses form a single ocean, but are conveniently divided into several great sections, an arrangement facilitated by the irregular distribution of the solid and fluid portions of the surface. Thus we have the Arctic, Atlantic, Indian, Pacific and Antarctic ocean basins.



THE OCEAN.

148. The Arctic Basin surrounding the North Pole is bounded by the northern shores of America, Asia, and Europe; and in the spaces between the two continents the astronomical line of the Arctic Circle is usually considered as its limit. The principal branches of this ocean are Baffin's Bay, the White Sea, the Sea of Kara, the Gulf of Obi, and Behring's Strait.

149. The Atlantic Basin lies between America on the west, and Europe and Africa on the east, and has the Polar Circles for its north and south limits. Its branches are the Gulf of St. Lawrence, the Caribbean Sea and Gulf of Mexico, and the estuary of the La Plata in America; the Baltic Sea, the



THE ATLANTIC OCEAN.

German Ocean, the Mediterranean and Black seas, and the Gulf of Guinea in the Old World.

150. The Indian Basin has for its boundaries, Africa on the west, Persia and Hindostan on the north, the Sunda Isles and Australia on the east, and the Antarctic Ocean on the south. Its chief branches are the Red Sea, the Persian Gulf, and the Bay of Bengal.

151. The Pacific Basin is inclosed between America on the east, and Asia, the Sunda Isles, and Australia on the west, and the Polar Circles on the north and south. The principal arms of this basin are the Sea of China, the Yellow Sea, the Sea of Japan, the Sea of Okhotsk, the Gulf of California, and the Bay of Panama.

152. The Antarctic Ocean is confined between the Antarctic Circle and the South Pole.

153. The Arctic Ocean is closed to navigation in its higher latitudes by eternal frosts; but as the Arctic winters vary in severity, the ice formation varies correspondingly. Hence some navigators have found an open ocean, where to others it has presented an impassable barrier at the same period of



SCENE IN THE ARCTIC OCEAN.

a different year. In summer, when the whalers pursue their perilous occupation at a high latitude, the waters, though open, are by no means clear, but exhibit immense icy masses floating to and fro, fraught with peril to the voyager, which are drifted by the winds and currents far from the sites of their origin, some perishing by collision, and others reaching the heart of the Atlantic, where they are dissolved in its warmer waters.

154. Some variations of level are observed between different sections of

the universal ocean. This is the effect of local winds and currents, and chiefly occurs in land-locked seas.

155. The bed of the oceanic waters exhibits similar irregularities to those which mark the surface of the dry land--abrupt eminences, gentle slopes, and deep depressions—and hence the various depths of the fluid, now beyond the reach of the sounding line, or a thin stratum scarcely concealing the sand-bank from the eye of the navigator. Off a low, level, and sandy shore, the sea is in general shallow for a considerable distance, and very deep close to a bold, towering coast. But near to islands of coral formation, which are so little elevated as not to be visible at any great distance, the Pacific Ocean frequently shows profound depths. Within a mile and a half of Keeling Island no bottom was found with a line of 7,200 feet, plainly proving it to be the crest of a lofty submarine mountain, with sides steeper than those of the most abrupt volcanic cones.

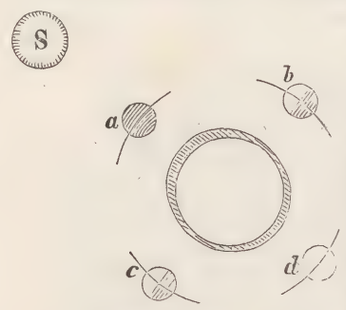
156. The pressure exerted by the ocean, increasing with the depth, must be enormous in its more profound depths. Even at the depth of 120 feet the same amount of sea-water will be reduced in bulk by compression from 20 to 19 solid inches. In the Arctic Sea, where the specific gravity of oceanic water is at its minimum, its pressure on a square inch of surface is estimated to be 2,809 pounds at the depth of 7,600 feet.

OCEANIC MOVEMENTS.

157. The ocean is subject to the three general movements of waves, tides, and currents, the causes of which are independent. The wave movement is of an inconstant and transitory character, occasioned by winds; and that of the tides is regular and periodic, while the currents are the result of various circumstances, and, permanently flowing, resemble great rivers in the sea.

158. Waves arise from the action of the atmosphere, the lower stratum of which is in contact with the surface of the ocean, and when agitated by winds, disturbs the equilibrium of the water in proportion to the intensity and duration of the force exerted. The progressive motion of the undulations produced appears like an onward flow of the water, but in reality there is merely a rise and fall, except in the case of long-continued storms, which occasion a superficial current. At a comparatively small depth (say 200 feet) the ocean is tranquil when furious tempests are agitating its surface.

159. The theory of tides, so far as it depends on astronomical causes, is based chiefly on the attraction of the moon, strengthened or weakened by the influence of the sun, according to the relative position of the two bodies. Twice every day, or in the interval between successive returns of the moon to the meridian of a given place, which is 24 hours 50¼ minutes, the sea flows and ebbs, but much less toward the poles than within the tropics, the latter zone being more directly exposed to the lunar attraction. The influence of the planets is also modified by their varying distances from the earth.



TIDE DIAGRAM.

160. The innumerable islands, coral reefs, and submarine table-lands of the Pacific are impediments to tidal phenomena, while the Atlantic is disqualified for originating a great wave or tide, owing to its form and direction —that of a narrow, meridional canal. Accordingly, it has been ascertained that the seas to the south of Australia form the grand center from which the tidal action radiates. A high water ridge being raised, and receiving an impulse in the direction of the acting luminaries—that is, westward in the apparent lunar and solar path but trending north toward the tropics, the region of the direct line of their attraction—it expends its force in displacing a contiguous mass of fluid, similarly raising it, and in like manner the undulation is prolonged with immense velocity from the scene of its origin. It travels at the rate of 1,000 miles an hour in the deep and open southern ocean, but with a much less velocity in shallows and near land, owing to obstruction from the shores and bed of the sea. The propagation of a tidal wave is not a transference of water, but the motion of an undulation. There is no perceptible advance in the profound open sea, only an alternate rise and fall of the surface; but a flow of water takes place over shoals and near land.

161. The oceanic currents, permanent but of unequal force, are the effect of winds, of differences of temperature between different parts of the ocean, of the melting of polar ice, of variations of atmospheric pressure, and other minor circumstances. Drift currents are due to the action of permanent or prevailing winds upon the surface water, by friction impelling it to leeward, until meeting with some obstacle, such as land or sand-banks, its progress is arrested, and an accumulation of the water produced. In such circumstances a drift current gives rise to a stream current, carrying off the collected waters to restore the equilibrium of the surface of the ocean.

162. No ocean is so remarkable for the variety of its currents as the Atlantic, which seems chiefly to arise from the variegated outline of its shores. They are also the most accurately known, its waters having been most subject to scientific navigation and investigation. The origin of the main series is at the Cape of Good Hope, and from thence almost a complete circuit of the coasts appears to be made.

163. The great sea streams have offsets, in some instances occasional, due to transitory causes, or there is a change in the set of a current. There are also strong currents produced by tidal action, encumbered by narrow channels and projecting coasts. These local currents sometimes meet from opposite quarters, and cause a whirlpool, like the long celebrated maelstrom on the coast of Norway, occasioned by the meeting of the tidal currents round the islands of Lofoden and Maskoe.

164. Oceanic currents have exerted an important influence in the past history of the globe, and are necessary to its occupation by the human race. The productions of the vegetable kingdom have been widely diffused by the transport of seeds from one region to another. In like manner animals have been transported involuntarily to a fresh home on floating ice; and canoes, with men and women, driven out to sea by strong winds, have got entangled in its powerful streams, and been borne to lands before without human tenant. Materials drifted across the Atlantic to the Azores strengthened Columbus in his design to navigate it, and led to the gates of the New World being opened. The currents carry the warm water of the tropics to the polar regions, to moderate the cold, and bear the cold water of the poles to the tropics, to moderate the heat. It is the warmth of the Gulf Stream conveyed to the northwest of Europe that renders the climate so mild, clothing British Isles in evergreen robes, when in the same latitudes the shores of Labrador are encased in ice.

165. Without waves, tides, and currents the ocean, charged with an immense amount of decomposing animal and vegetable matter, would become a stagnant, fetid pool, give off noxious exhalations, infect the whole atmosphere, and reduce the habitable parts of the earth to the condition of a desert waste.

ACTION OF WATER UPON THE LAND.

166. Mere rain is a powerful agent of disintegration, and in course of time largely alters the contour of the most solid masses subject to its action. The tremendous showers which fall upon the plateau of Abyssinia, originating the floods of the Nile have given a peculiar shape to its projections, in process of further change. Some are flat, thin, and square, in form of a hearth-stone or slab, scarcely seeming to have base sufficient to resist the winds; others are like pyramids, obelisks, and prisms; and some—the most extraordinary of all—resemble pyramids pitched upon their points, the base being uppermost. The torrents discharged from the clouds have been for ages


DISINTEGRATED ROCKS.

skeletonizing the country, dismantling the larger masses of the softer deposits, wearing away also the granitic rocks, and carrying away the soil of Ethiopia, strewing it along the valley of the Nile and the shores of the Mediterranean.

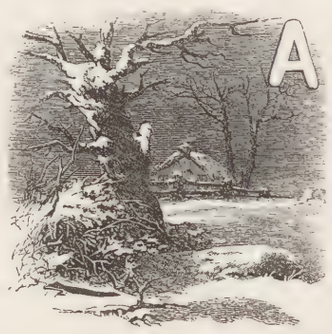
167. Springs and rivers officiate largely in either chemically corroding rocks and soils, or mechanically forcing particles asunder, transporting them to fresh sites by their currents; but river floods sweep before them immense blocks, and plow their way through obstructions in their course. The deltas, which owe their origin to deposition from the rivers, are continually increasing by the constant supply of sediment. Instances, the ever-extending deltas of the Mississippi, Nile, and Po.

168. The action of the ocean by its waves and breakers upon abrupt coasts, especially when composed of yielding materials, is very powerful in wearing them away and preparing detritus for currents to convey to distant parts of its own bed. Within the memory of man extensive losses of land have thus been brought about, and acres have been sown and reaped which are now the property of the sea.

169. While the ocean thus encroaches upon the land to diminish its quantity, it tends in some instances to increase it. Where the coast is low and the bottom sandy, the waves carry the sand forward, which becomes dry land at every reflux of the tide; and as the habitual direction of the wind upon the sea, the loose particles are further conveyed inland, forming hillocks around stones and bushes, which increase into sand-hills, and are called "dunes" or downs. This is a destructive gift from the ocean, converting fertile districts into sterile wastes. The coast of France from Brittany to the Pyrenees presents vast undulating tracts of sand, the gift of the Atlantic on the advance inland.

170. The waters tend in general to reduce the high grounds and raise the low; to equalize the level of the land by the transport of matter torn from the more elevated parts to inferior sites; as well as perhaps to contract the habitable area of the globe by transference of its material to the floor of the ocean; but this tendency of aqueous action is sufficiently counterbalanced by the upheaving force which operates upon the solid crust of the earth, and keeps up a due proportion between the areas of its dry and fluid portions.

ATMOSPHERE AND ITS PHENOMENA.



ATMOSPHERE is that stratum of gaseous matter which everywhere surrounds the earth, and is maintained at its surface by the force of gravity. Unlike the land and water, it is imperceptible to the touch, unless in agitation, and only visible when its aqueous particles are collected in clouds and vapors. Some of the most marvelous phenomena of nature have their source and seat in this fluid envelope. It performs also the most important functions in the economy of terrestrial existence: for upon its chemical constitution all organic life absolutely depends, nor is its mechanical agency as indicated by winds and temperature less essential to the development and preservation of vegetation and animal life.

172. This remarkable fluid consists of dry air and the vapor of water. The air is essentially composed of oxygen and nitrogen in definite proportions—gases which are highly injurious when inhaled separately. In 100 measures of pure atmosphere there are 20 or 21 volumes of oxygen, and 80 or 79 of nitrogen. But it is never absolutely pure; and under ordinary circumstances contains not only aqueous vapor, but also a small but varying quantity of carbonic acid gas. In all regions, at all altitudes, and at all times the atmosphere yields the same chemical result.

173. It was surmised by the ancients that air had no weight, nor was the verification to the contrary proved until the early part of the 17th century. The atmosphere, it is now known, exerts a pressure or weight of about 15 pounds in the square inch of the earth's surface, which is equal to the weight of a column of mercury one inch square and 30 inches high, or a column of water of the same base and 34 feet high. The barometer, a simple instrument invented by Toricelli, pupil of Galileo, demonstrates this fact.

174. The atmosphere is in a high degree elastic, or possesses the property of occupying less space under the influence of certain forces, and returning to its original volume when the influence is withdrawn. Hence its density is not uniform, but diminishes from below upward, because the lower portions are compressed by the circumambient air. The height of the atmosphere is not known, but it is supposed to extend to about fifty miles; yet by far the greater portion of it is within 15 or 20 miles of the earth's surface, and at a much less distance it becomes so rarefied as to be incapable of supporting life.



175. It is naturally colorless. Its prevailing blue arises from the rays of the red extremity of the spectrum freely passing through it while the blue rays undergo the greatest reflection. The hue of the sky, however, presents all imaginable shades, from deep blue in the zenith to paler tinges and complete whiteness toward the horizon. This is owing to the blue tints on the zenith being darkened by the deep black of inter-planetary space, and heightened toward the horizon by the white vesicles of fog and vapor which occur in the greatest abundance in that direction.

CURRENTS OF THE ATMOSPHERE.

176. The varying attraction of the sun and moon occasions in the aerial ocean an alteration in the heights of vertical columns of air or atmospheric waves analogous to tidal phenomena; but the agitations most familiar or the winds are chiefly owing to changes in the temperature of a portion of the air and in the quantity of water which it holds in a state of vapor. The equilibrium of the atmosphere being broken, the particles of air are set in motion to restore the balance: and as the deranging causes act with varying intensity, the winds or currents created are diverse in power.

177. To indicate the direction of the winds, the horizon is divided into various equal parts, and each current receives the name of the point of the horizon from whence it flows. But there are currents the direction of which no point of the horizon will indicate; for miners have long been familiar with very strong ascending gusts before and during violent tempests. The explanation of these phenomena is that storms are almost always preceded or accompanied by a great fall of the barometrical column. The atmospheric pressure becoming less, the air in the bowels of the earth expands and ascends to the surface.

178. Currents frequently move in contrary directions at different elevations. This is apparent from the course of the clouds divergent from the one indicated by the vane, and from the higher clouds passing in an opposite direction to those below them.

179. The velocity of winds is open to sensible observation by the force exerted upon our own, or the impression made upon light, pliable objects. When traveling at the rate of one mile an hour, the motion is scarcely perceptible: at 5 miles it is a gentle, pleasant wind, at 10 miles a brisk breeze, at 30 miles a high wind, at 50 miles a storm, at 80 miles a hurricane, and at 100 miles a hurricane carrying trees and buildings before it. Winds are commonly strongest in mountainous districts, owing to the obstacles presented by the surface, which determine the aerial accumulations escaping in furious local currents through the valleys and gorges. In a similar manner, when the bed of a river becomes narrow or impeded with rocks, violent currents are produced in all directions.


CALM AT SEA.

180. Permanent breezes prevail within the tropics, called Trade Winds, which maintain nearly the same direction and rate throughout the year. They are termed from their direction being from northeast in the northern hemisphere, and from southeast south of the equator, the Northeast and Southeast Trades, but both blow more decidedly from the east as the equator is approached. Between them is a zone styled the Region of Calms, in which a thick, foggy air prevails, with frequent sudden and copious rains, attended by thunder and lightning.

181. The trade winds may be readily explained. The regions bordering on the equator are the hottest on the earth. In consequence of rarefaction the air there ascends and flows over the colder masses on either side toward the poles, from which a colder atmosphere moves to supply its place. Thus two currents are created in each hemisphere, an upper and a lower, but flowing in opposite directions; and if the earth did not rotate on its axis, the direction of the lower current in the northern hemisphere or trade wind would be from north to south, and in the southern from south to north. The earth, however, rotates from west to east, and the atmosphere surrounding it partakes of this rotatory motion. Yet in proceeding from the poles to the equator the masses of air flow from regions where the rotatory motion of the surface is less to where it is greater; and unable to acquire the new velocity at

THE WORLD
Illustrating
THE PRINCIPAL FEATURES OF
METEOROLOGY.

In the Smaller Map the shading is darker in proportion as the quantity of Rain which falls annually is greater.

The light waved lines which cross the Map from East to West are **Isotherms** (or lines of equal mean temperature) and the figures attached to each mark the degree of mean annual heat which it represents and which is the same in all places through which it passes.

The regions within which revolving (or whirlwind) storms have been ascertained to prevail are indicated thus

NORTHERN REGION OF VARIABLE WINDS IN WHICH SOUTH WESTERLY CURRENTS OF AIR PREDOMINATE

REGION OF THE NORTH EAST TRADE WIND

ZONE OF CALMS FREQUENTLY INTERRUPTED BY VIOLENT STORMS (Doldrums)

REGION OF THE SOUTH EAST TRADE WIND

SOUTHERN REGION OF VARIABLE WINDS OF WHICH NORTH WESTERLY CURRENTS OF AIR PREDOMINATE

DISTRICT OF THE TYPHOONS

N.E. TRADE WIND

REGION OF THE MONSOONS or Periodical Winds

ZONE OF CALMS

S.E. TRADE WIND

RAIN MAP

NORTHERN ZONE OF VARIABLE RAINS

Rainless Dist. of the Old World

ZONE OF ALMOST CONSTANT PRECIPITATION

Rainless Dist.

SOUTHERN ZONE OF VARIABLE RAINS

Northern limit of fall of Snow in the Southern Hemisphere

ANTARCTIC CONTINENT

Entered according to Act of Congress in the Year 1855 by T. H. Adam Keith in the Clerks Office of the District Court of the United States in the Southern District of New York

THE WORLD
Showing the
DISTRIBUTION AND LIMITS
of Cultivation of
THE PRINCIPAL PLANTS
USEFUL TO MANKIND

Spitzbergen — DWARF WILLOW, SAXIFRAGES, LICHENS &c

Melville Is. — LICHENS & MOSSES

REGION OF SAXIFRAGES & MOSSES

NORTHERN LIMIT OF TREES

NORTHERN LIMIT OF CULTIVATION OF GRAIN (BARLEY, RYE & OATS)

NORTHERN LIMIT OF CULTIVATION OF WHEAT

POTATOE

BARLEY, POTATOE

NORTHERN LIMIT OF BARLEY, RYE & OATS

NORTHERN LIMIT OF WHEAT

OAK

LIMIT OF CULTIVATION OF MAIZE

LIMIT OF CULTIVATION OF RICE

VINE OF THE N. HEMISPHERE

DATE PALM

REGION OF THE DATE PALM

MAIZE, MILLET, MANDIOC, BANANA, YAM & PINE-APPLE

COFFEE TREE

Abyssinia COFFEE TREE

RAGGED OIL PALM, GROUND NUT

REGION OF SPICES, CINNAMON, PEPPER, CLOVE, NUT MEG, GINGER &c.

REGION OF COCOA NUT PALM, BREAD FRUIT TREE, SAGO TREE, YAM, PAPAW & BANANA

PANDANUS

REGION OF EUCALYPTIGUM TREES, ACACIAS, FERNS &c

PHORMIUM TENAX, TARO, FERNS &c.

N. LIMIT OF PALM TREES

SOUTHERN LIMIT OF PALM TREES

S. LIMIT OF GROWTH OF VINE

S. LIMIT OF VINE

S. LIMIT OF WHEAT

LIMIT OF CULTIVATION OF MAIZE

LIMIT OF CULTIVATION OF SUGAR, COFFEE, COTTON & INDIGO

LIMIT OF CULTIVATION OF RICE

Range of Banana, Mandioc, Sweet Potatoe, Yam, Ginger & Pine Apple in the New World

Range of Cultivation of Sugar, Coffee, Cotton & Indigo in both Old & New Worlds

Range of Orange, Lemon, Olive & Fig in Europe & Asia & in the Old World

Range of Apple, Pear & Plum in Western Europe

Range of Flax & Hemp

TROPIC OF CANCER

TROPIC OF CAPRICORN

EQUATOR

ARCTIC CIRCLE

ANTARCTIC CIRCLE

Second entered according to Act of Congress in the Year 1855 by T. H. Adam Keith in the Clerks Office of the District Court of the United States in the Southern District of New York

once, they are deflected toward the west just in proportion as they do not keep up with the surface toward the east. Hence, instead of being north and south winds, which they would be were the earth at rest, they become northeast and southeast winds.

182. The trade winds would blow regularly round the entire globe within



DIAGRAM OF TRADE WINDS.

80° of the equator on each side, but the uneven surface and unequal temperature of the land divert and derange them. Thus, on the African side of the Atlantic, within a considerable distance of the land, they are not experienced at all, but contrary westerly winds prevail. This is owing to the rarefaction of the air over the hot desert of Sahara, which creates a current of colder air blowing toward the shore. The Pacific Ocean has regular trade winds with the Atlantic; but in the Indian Ocean they are interrupted by the monsoons. They are also experienced on equatorial lands which exhibit extensive levels, as in the basin of the Amazon, where a constant breeze is found blowing from its estuary to its sources at the foot of the Andes.

183. Where the northeast and southeast trade winds approach each other they tend to produce a purely eastern breeze; but this is not perceptible, because the horizontal motion of the air is neutralized by the vertical motion consequent upon excessive heat and rarefaction. Here is the Region of Calms, in which there would be an almost perfect calm but for the great evaporation and violent rains which disturb the equilibrium of the atmosphere, and occasion sudden storms and squalls. This zone, separating the trade winds of both hemispheres, is entirely north of the equator, extending about six degrees in width at a mean.

184. Periodical winds, or those winds which regularly prevail at a certain time of the year or of the day, belong to various districts of the globe. The monsoons of the Indian Ocean, the Etesian winds of the Mediterranean, and the land and sea breezes are of this class.

185. Throughout the year nearly two winds are sweeping the surface of the Indian Ocean and adjoining land, and in different localities. From November to March a northeast wind reigns north of the equator, while at the same time a northwest wind blows south of the equator. From the middle of April to the end of September, north of the equator, a southwest wind blows, and at the same time a southeast wind south of the line. These are the "monsoons," a term derived from the Malay "moussin," signifying a season. They last respectively about five months, there being two months in the year in which no monsoon is experienced. The changes of the monsoons are effected in these intervals in which calms and light breezes alternate with gales, hurricanes, and thunder-storms.

186. The northeast and southeast monsoons may be regarded as trade winds explicable on the same principle, but counteracted for a certain time by causes which produce winds from a different quarter, or the southwest and northwest monsoons. The former from the southwest prevails coincidently with Bengal, Siam, and adjacent countries receiving their maximum of heat, occasioning a flow of cold air toward the region of rarefaction, while the latter from the northwest is coincident with the sun being vertical south of the equator, when the sandy plains of Australia are powerfully heated and the colder atmosphere is set in motion in that direction.

187. Etesian winds, signifying annual or seasonal, are those which blow strongly from the north in the Mediterranean in the summer. The immense desert of Sahara, south of the Mediterranean, deprived of water and composed of sand and flints, becomes very highly heated under the influence of an almost vertical sun, and currents are created from the colder atmosphere of the north. Periodical currents, called "Northers," blow from September to March in the Gulf of Mexico, sweeping over the central plains of North America from the polar regions. Similar currents occur also on the coast of Brazil, from northeast in the spring and from the southeast in autumn.



SAND-STORM IN THE DESERT.

188. Land and sea breezes depend on the daily heating and cooling of the land surface. The breeze from the sea, especially within the tropics, commences a few hours after sunrise, gradually increases till mid-day, attains its maximum force between 2 and 3 P. M., afterward dying away to a perfect calm at sunset. Soon after the breeze from the land commences, and continues until the morning, for at night the land rapidly cools while the sea retains its normal temperature. Around spacious lakes, for the same reasons, there is a breeze from the lake by day and toward it by night.

189. Variable winds prevail in the middle and high latitudes, the same wind seldom lasting for several successive days. Their prevailing direction depends on a variety of causes, as position north or south of the equator and the distance of localities from it, also on the topography of the district, its proximity to the sea, etc. There are no instances of constant or periodical winds in extra-tropical countries.

190. Winds may be further discriminated by certain physical properties derived from the regions from which they proceed. Thus at New York the east winds blow from the sea, and are much more moist than the west, which traverse the continent. The atmospheric currents are also variously hot or cold, as they come from highly heated deserts and warm climates, or from snow-capped mountains, ice-bound seas, and high latitudes in general. South of the Alps the north winds are very cold and frequently very violent, owing to the contrast between the snow-covered mountains and the elevated temperature of the Mediterranean. The same cause, the perpetual Alpine snows, renders the south wind so piercing in the valley of the Rhone. The burning deserts of Africa and Asia are the countries where hot winds occur in force; but in India, covered with luxuriant vegetation, in Chile, the llanos of the Orinoco, Spain, Sicily, Italy, and Australia winds of a very high temperature are frequent. The Simoom of the deserts of Arabia, Syria, and Persia; the Khamsin of Egypt; the Harmattan experienced over Senegambia and Guinea, and the Sirocco of Italy and Sicily are all referable to the heated sand deserts in which they have their birth. The Solano, the hot wind of Spain, is referred to the plains of Andalusia.



SIMOOM.

191. Storm-winds result from a very considerable disturbance in the equilibrium of the atmosphere, arising principally from a rapid condensation of vapor. When they occur upon a great scale, electricity is powerfully developed with the precipitation of immense quantities of rain. Barometric oscillations indicate their approach. They are generally observed at the period of the greatest heat of the day; but in the interior of continents and in mountainous countries nocturnal storms are by no means uncommon.

192. Tropical storms frequently exhibit terrific violence, tearing up forests, leveling solidly built houses, and human life has been largely sacrificed in the war of elements. They are variously termed hurricanes, tornadoes, and typhoons; seldom occur nearer the equator than 8° or 10°, or beyond the tropics, and are most tremendous in the vicinity of continents and islands. It appears from recent investigations that these are to be regarded as great whirlwinds, the meeting of two opposite winds producing the whirling motion, and it is moreover affirmed that the rotatory motion is in opposite directions, as they occur north or south of the equator. It is further ascertained that northern hurricanes travel in an oblique direction from the equator toward the poles. The West Indies, the Indian Ocean, and the Chinese Sea are the three great hurricane regions.

193. In the middle and high latitudes storms are commonly far less extensive and violent than in tropical districts. There are, however, local storm regions where the winds often blow with the fury of the hurricane, as in the Gulf Stream, the vicinity of Cape Horn, and the territory of the Argentine Republic. In the latter locality the "Pamperos" or southwest winds, which originate among the snows of the Andes, rush with such incredible velocity over the level pampas as to carry everything movable before them.

194. The winds perform a grand and important part in the economy of nature. They moderate the severity of polar climates by bringing to them the heat of the tropics; promote the fecundation of flowers by agitating the branches of plants, at the same time diffusing the productions of the vegetable kingdom by the transport of pollen and seeds to great distances; and but for the aerial currents rain would be confined to maritime countries, the interior of continents becoming arid deserts. They serve also to renew the air of cities where causes of vitiation largely operate, and prevent that stagnation of the atmosphere which tends to deteriorate physically and mentally the human race.

ATMOSPHERIC MOISTURE.



195. Water placed in a vessel in the open air sensibly diminishes, or, in other words, it evaporates. In like manner evaporation transpires, only on a grander scale, from the great reservoirs on the earth's surface, the oceans, lakes, and rivers, as well as from the moist ground, subject to diurnal and local variations, because depending mainly on temperature.

196. The amount of moisture in the air is an element on which the life of animals and plants as much depends as on temperature; and the character of the landscape, with the development of disease, is greatly influenced by its hygrometrical condition. The amount varies in different regions and at different seasons. As resulting from the action of heat on water, the quantity of vapor diminishes from the equator to the poles. It decreases also as we pass from coasts into the interior, the temperature being the same, because in one situation water is abundant and in the other scarce.

197. The capacity of the air to receive vapor depends on its temperature, and is invariable in its extent at the same temperature. When as much has been taken up as from its temperature it is capable of receiving, the air is said to be saturated, and any further supply is resolved into a fluid condition or floats in a state of cloud and mist. When, too, the atmosphere is saturated, the least decrease of temperature is followed by the precipitation of moisture. Hence arise the different hydro-meteoric forms, as mist, cloud, rain, snow, hail, dew, and hoar frost.

198. Mists and fogs are formed when the air is saturated, and generally when the moist soil or the water of lakes and rivers is warmer than the air, the vapors from which are immediately condensed. Mists differ in no respects from clouds, except in position, being on the surface of the earth, instead of being suspended at a height in the atmosphere. Travelers on the summits of high mountains frequently remark upon the fog intercepting their view, while the inhabitants of valleys below speak of clouds clothing the mountain slopes and crests.

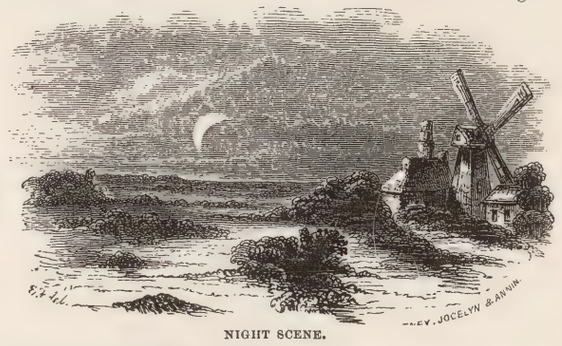
199. Clouds are masses of visible vapor-like mists, occurring at a distance from the surface of the earth, floating under the direction of the winds, exhibiting an endlessly diversified outline, a varying density, and appearing at different elevations. The denser clouds are usually formed toward noon, when the vapors are raised up by the ascending currents of air, and then condensed by the lower temperature of the upper regions.

200. Notwithstanding the varied disposition of clouds, they may be classified under a few principal types. The following three primary forms are those which are noticed by the spectator:

Cirrus or Curl Cloud.—The Cirrus is composed of white, thin filaments, variously disposed, in the form of woolly hair, a crest of feathers, or slender network. These clouds are known in Germany under the name of "Windsbœume" or wind-clouds. Their appearance often precedes a change of weather—rain or wind in summer, frost or thaw in winter.

Cumulus or Stacken Cloud.—This modification of cloud, usually under the direction of surface winds, presents itself in the form of a vast hemispherical heap of vapors resting on a horizontal base. Hence its name "Cumulus," a heap or pile, and "Stacken Cloud," masses of vapor stacked into one enormous fabric. This may be called the summer-day cloud, from its frequent occurrence at that season, resembling a mountain of snow when lighted up by the beams of the sun. It usually begins to form early in the morning, enlarges as the day advances, attains its greatest magnitude at high day, decreases as the sun declines, and breaks up toward sunset.

Stratus or Fall Cloud.—This cloud consists of horizontal bands contiguous



NIGHT SCENE.

to the surface of the earth. It belongs to the night, forming at sunset and disappearing at sunrise.

201. To the above primary varieties four transition or composite forms are added, and are as follows:

Cirro-Cumulus or Sonder Cloud.—This name designates the feathery accumulated cloud, familiarly known as fleecy, intermediate between cirrus and cumulus. It consists of small orbicular patches, arranged in extensive beds, the component parts being quite distinct or asunder.

Cirro-Stratus or Wane Cloud.—Bands of filaments more compacted than those of the cirrus compose this cloud, lying inclined or disposed in horizontal strata. It is sometimes seen cutting the sun on the moon's disc with a dark line.

Cumulo-Stratus or Twain Cloud.—Two or more cumuli united together



1—1. Cirrus. 2—2. Cirro-Cumulus. 3. Cumulus. 4. Nimbus. 5. Stratus.

and resting on a common stratum form this cloud, the most magnificent variety of which often exhibits a copper tinge, indicating a highly electrical condition of the atmosphere, and precedes a thunder-storm. The cumulo-stratus is often seen cut by the cirro-stratus.

Nimbus or Rain Cloud.—Any of the preceding modifications may pass over into the actual rain cloud, first exhibiting a great increase of density and a bluish-black tone of color, then putting on a lighter shade or gray obscurity, and becoming fringed at the edges.



THUNDER-STORM.

202. The clouds are most frequently higher within the tropics than in the temperate zones, and in the temperate zones they are commonly higher in summer than in winter. The cirri are the highest clouds, and frequently range from 3 to 5 miles above the earth.

203. Composed of vesicular vapors, the suspension of clouds aloft seems extraordinary, since they are specifically heavier than the medium in which they float. These vesicles, indeed, are constantly, but slowly on account of the resistance of the atmosphere, falling. But in descending they soon reach warmer strata, which are not saturated, where they dissolve and are lost to view, while at the same time new vesicles are formed above. Thus the component parts of a cloud are often slowly descending, and yet the cloud appears to be suspended in the air, its lower limits being continually dissolved and the upper renewed; and the ascending currents of heated air also exert a force directly opposed to the fall of clouds. Hence the mighty masses of clouds (cumuli) attain their greatest elevation about noon, but toward evening, as the temperature declines and the ascending current becomes feeble, these clouds descend and are again dissolved on reaching the lower and warmer regions of the atmosphere.

204. Rain is produced by the continued condensation of vapor, its vesicles becoming larger and heavier, separate globules merging together forming actual drops of water, which are precipitated toward the earth. Rain may have begun to fall, and yet not reach the ground, being resolved again into invisible vapor on arriving at strata removed from the point of saturation. For the same reason rain-drops may become smaller in their descent, a portion being evaporated, and less rain arrive at the general surface than at a certain height. Usually the drops increase in their descent, bringing with them the low temperature of the upper regions and condensing on their surface the vapor in the lower and warmer strata of the atmosphere. Hence a rain-guage placed on the ground will collect a larger quantity of water in a given time than another placed at some height above it, the drops increasing by the condensed vapor added to them in the space between the two points.

205. Instances of rain without clouds are by no means rare. They may occur when the equilibrium of the atmosphere in its upper regions is intensely disturbed by very cold and warm currents coming into collision, condensing the vapors into water without going through the transition state of vesicular vapor.

206. The contents of a single shower of rain vary greatly in different localities and at different periods at the same place. It is stated that when the quantity of rain that falls per diem exceeds three centimetres (less than an inch) the low plains of Europe are soon inundated. In excessively rainy seasons, especially when harvests are blighted, the ignorant are apt to infer a deterioration of climate. But on comparing different years, the annual amount of rain, like mean temperature, is remarkably stable.

207. The laws in relation to the distribution of rain may be summed up briefly as follows:

a. It decreases in quantity from the equator toward the poles; because heat, the cause of vapor, diminishes.

b. It decreases from the coast to the interior; because the land supplies a less quantity of vapor than the sea.

c. It decreases in the temperate zones on the eastern coast as compared with the western, because the latter are first exposed to the western winds, which blow from the ocean and discharge their moisture upon them. But within the tropics on eastern coasts as compared with western, because of their exposure to the trade winds.

4. More rain falls in mountainous regions than in level districts; because mountains arrest the course of the clouds, and a condensation of vapor ensues from collision with their cold summits.

208. There are extensive tracts of the globe in which rain is unknown; in some districts it falls periodically, and in others precipitation may be said to be constant.

209. The "Rainless Regions" of the New World comprise portions of California and Guatemala, the Mexican table-land, and the coast line of Peru; and those of the Old World comprehend an immense territory, stretching from Morocco through the Sahara, a part of Egypt, Arabia, and Persia



SNOW-STORM.

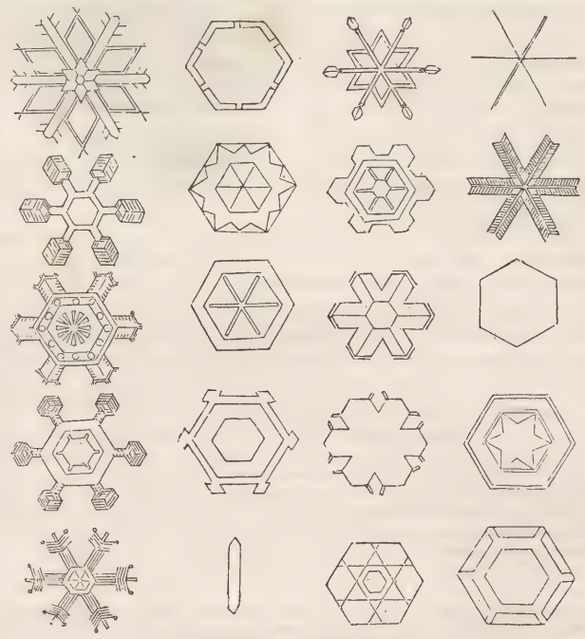
into Beloochistan, with another great one commencing north of the Hindoo-Koosh and Himalayas, including the table-land of Tibet, the desert of Gobi, and a portion of Mongolia. In these tracts there is either no rain at all or only a very small quantity, and so seldom occurring as to be quite an exception.

210. The "Regions of Periodical Rain" are within the tropics, and have seasons of extreme humidity alternating with excessive drouth. The duration of the rainy season differs in different districts, but lasts generally from three to five months. North of the equator the rains fall during the northern declination of the sun, and commence south of the equator with its southern declination. The only exception to this rule is India, where the rainy and dry seasons are regulated by the monsoons.

211. The "Regions of Constant Precipitation," in which rain falls irrespective of times and seasons, are extra-tropical; except the Zone of Calms, a narrow belt between the periodical rains of the northern and southern hemispheres, in which heavy showers occur almost daily.

212. Snow is nothing more than the frozen visible vapor of which the clouds are composed. Minute crystals of ice having been formed, they are enlarged by the condensation and freezing of vapor, and, merging together, constitute flakes which increase in size during the period of their descent. Snow falls to the ground when the temperature of the atmosphere down to the earth's surface is sufficiently cold; but if the lower strata of air are too warm, it melts in traversing them, and then we have rain below while it snows above. Hence snow is never seen at the level of the sea within the torrid zone, and it becomes more abundant with the decrease of temperature toward the poles.

213. The structure of snow-flakes exhibits an endless diversity of regular and beautiful forms, probably amounting to some hundreds. It will be seen, however, from the annexed engraving, that all are essentially referable to a



VARIOUS FORMS OF SNOW-CRYSTALS.

regular hexagonal star, and consequently snow-flakes belong to the hexagonal system of crystals, It has also been observed that flakes which fall at the same time have generally the same form; but if there be an interval between two consecutive falls of snow, the forms of the second are different from those of the first, although always alike among themselves.

214. The limits of snow-falls at the level of the sea in the northern hemisphere are generally the parallel of 30° in America, which cuts the southern part of the United States; 43° in the middle of the Atlantic, and 36° in the Old World. For some distance above these limits its appearance is rare and brief. The whole of America north of the Gulf of Mexico and the whole of Europe are included in the snowy region; but it becomes more abundant the farther the locality from the ocean. In February, 1836, a fall of snow occurred at Canton, in latitude 23° north, a fact without precedent in the memory of the oldest Chinaman.

215. Hail is one of the most obscure problems in meteorology. It no doubt often consists simply of rain-drops more or less suddenly frozen by exposure to a temperature below the freezing-point. Yet hailstones are not transparent ice, but have usually an opake, snowy nucleus, resembling a granule of sleet, sometimes coated with alternating layers of snow and ice. Sleet seems to be the germ of hail changed in form and increased in size during its descent in the atmosphere. The great difficulty, however, is that during fine seasons and the hottest days such intense cold should be suddenly produced as the phenomenon of hail indicates; and that certain countries, as some parts of France, should be annually ravaged by considerable falls of opake ice, from which adjacent localities are almost wholly free. These are circumstances which have not been yet satisfactorily explained, though probably dependent upon electricity, which is almost always powerfully developed during hail-storms.

216. Dew, the moisture precipitated during the night in the form of minute globules on the surface of plants and other bodies, is the effect of these bodies being cooled by nocturnal radiation several degrees below the temperature of the air in contact them. Chilled by the cold embrace, the aerial particles are no longer able to support the same quantity of humidity in the state of transparent elastic vapor, and a portion is deposited. It is precisely the same phenomenon occurring on a great scale as the precipitation of vapor on a bottle of wine taken from the cellar, or a decanter of water fresh filled from the well and brought into a heated room.

217. Dew is produced for the most part on calm and serene nights. The reason is that only in the absence of clouds is the radiation of the earth's heat toward the sky conducted so powerfully as to cool it sufficiently below the temperature of the superincumbent air. When the heavens are overcast, the heat radiated, which would otherwise go off into free space, is returned by the clouds to the earth, and thus the necessary decrement in its temperature is prevented. There is no dew, however, when the sky is cloudless, if the wind is brisk, because the air in contact with the soil suffers displacement before it can be cooled to the dew point.

218. Dew is formed most abundantly on objects perfectly exposed to the sky, for whatever acts as a shelter impedes radiation. Hence there is less dew in cities, and plants placed under a tree are much less moistened than the grass in the middle of a field; and moreover dew is deposited much sooner and more abundantly on certain objects than on others, because all bodies have not the same capacity for radiating heat. Plants are sooner bedewed than the earth, and in general objects of open texture sooner than solid bodies.

219. Dew is most abundant in maritime countries. In the interior of continents the air has not the amount of humidity requisite for its production, except near great lakes and rivers. It forms most copiously in the spring and autumn, because in these seasons there is the greatest difference in the temperatures of day and night. The average annual quantity is estimated at a depth of one seventh of the annual amount of rain precipitation.

220. The preceding remarks show the inaccuracy of the popular expressions of the dew falling or rising. It is simply deposited; it may be, upon an under surface which nothing by falling can touch, or upon a side surface which nothing by falling or rising can reach.

221. The dew point is the degree of the thermometer at which the vapor of water present in the atmosphere, on being exposed to a decrease of temperature, begins to be precipitated. It is the same as the point of saturation.

222. Hoar frost is the ice of dew. When objects upon which the vapor of water is precipitated are cooled below 32° Fahr. (the freezing-point) the vapor can no longer be deposited in a fluid state, but in the form of icicles.

ATMOSPHERIC TEMPERATURE.

223. On observing the temperature of a place as registered by a thermometer, it is found to be constantly fluctuating through a certain range above and below a mean standard. By the temperature of a place meteorologists always mean, unless it is otherwise expressed, that of the air near the earth's surface as indicated by a thermometer efficiently protected from every kind of foreign influence.

224. The temperature of the day in the middle latitudes is at its minimum a short time before sunrise, and attains its maximum about 2 o'clock in the afternoon, somewhat later in summer and earlier in winter. In hot climates on the sea-coast the maximum temperature frequently occurs before the culmination of the sun, because about noon a fresh breeze sets in from the sea and lowers it.

225. Temperature in equatorial regions is distributed tolerably equally over the whole year, owing to the days and nights being equal; but in the middle and high latitudes, where the length of the day varies greatly, it takes a wide range above and below the annual mean. But in general the mean annual temperatures vary very little. In the middle latitudes the greatest heat occurs in July, and the greatest cold in January, and the mean temperature of the year is very nearly approximated by the mean mensal temperatures of April and October.

226. The Warmth Equator or the line of the highest mean annual temperature is not coincident with the geographical equator, but lies almost wholly to the north of it. It passes along the coast of New Granada and Venezuela in South America, intersects Africa from the Gulf of Guinea to the Abyssinian shore of the Red Sea, and cuts through the extremities of the Arabian, Indian, and Malay peninsulas. The line only occurs south of the geographical equator in the space between 150° west longitude in the Pacific Ocean and the Sunda Isles. The greatest mean annual temperature (87° 3′ Fahr.) hitherto observed occurs at Massouah, in Abyssinia, in latitude 15° 36′ north. The minimum equatorial annual mean (81°) occurs at several places.

227. Passing from the tropics toward the poles the temperature declines gradually, but much more rapidly in the New World than in the Old (except under the eastern meridians of Asia), as shown in the following table:

Latitude.	Temp. of the New World.	Temp. of the west part of the Old World.	Difference.
30°	66° 92	70° 52	3° 60
40°	54° 50	63° 14	8° 64
50°	37° 94	50° 90	12° 96
60°	23° 72	40° 64	16° 92

The lowest mean annual temperature or greatest cold hitherto noticed, 1° 49′ Fahr., was observed at Melville Island, latitude 70° 47′ north.

228. From the rapid decline of temperature in America and eastern Asia as compared with Europe, it is inferred that the lowest temperature does not coincide with the geographical poles; but that not many degrees distant, and under meridians nearly at right angles with that which passes through the west of Europe, there are two points of the greatest cold. This idea, started by Sir David Brewster, has been adopted by Humboldt, Dalton, and generally. The position of these remarkable points Brewster conceives to be in 80° north latitude and 95° east, and 100° west longitude. The mean temperature of the eastern or Siberian pole is supposed to be + 1°, and of the western or American pole — 3° 5, the American pole being thus 4° 5 colder than the Siberian.

229. The southern hemisphere is generally considered to be colder than the northern; but this only appears to be true in relation to its higher latitudes. Through the whole torrid zone, and up to about the 40th parallel south, the temperature of the two hemispheres exhibits little or no discordance. Beyond this limit toward the south pole the cold rapidly increases. The great difference is attributable to the direction of the oceanic currents, which bring from the polar regions immense masses of ice into very low latitudes, which they are enabled to do through an uninterrupted sea, while in the northern hemisphere the land almost incloses the Arctic Ocean.

230. The subject of subterranean temperature, a difficult point of inquiry, has been examined in natural excavations, mines, and Artesian wells with some general results of interest.

231. The effect of solar influence descends to a certain depth below the surface, and within that limit the temperature fluctuates with the periodical superficial fluctuations. The depth varies with the latitude, being least within the tropics, not much exceeding a single foot, but amounting to 25 feet at Paris, and in several Prussian mining establishments to from 27 to 63 feet—much depending upon the nature of soils and rocks.

232. Throughout the entire globe a stratum of invariable temperature is met with, which neither solar influence from above nor internal heat from below affects; and this temperature is proved to differ little from the mean annual temperature of the country at the surface. For more than half a century the oscillations of the thermometer in the caves of the Observatory at Paris have not exceeded the 33d part of a degree.

233. Below the stratum of invariable temperature the causes of internal heat perceptibly elevate the thermometer, and proportionably as the depth increases. The ratio of the increase is affected by the nature of the formations, and therefore varies. It is estimated, however, at about 1° Fahr. in every 45 to 52 feet. It is clear, then, either of these ratios being adopted, that at a very trifling distance below the surface, compared with the earth's semi-diameter, the hardest substances must be in a molten state.

234. The temperature of the medium in which the earth moves or of interplanetary space has not escaped the attention of philosophers. It is generally supposed not to differ much from — 58°, which is 90° below the freezing-point of water; and to have but feeble influence upon the lower strata of the atmosphere. The temperature of celestial space, as above given, is much inferior to the degree of cold which may be produced artificially, which amounts to — 91° or 123° below the freezing-point.

CLIMATE.

235. The "first" determining circumstance to be considered among the causes which produce variations in climate is the position of a country in relation to the sun or its latitude.

236. The calorific action of the sun is the most powerful when in the zenith of the observer, and hence toward the equator we have the greatest comparative amount of heat and the warmest climates, because at some point or other within the tropics the mid-day sun is always vertical above the heads of the inhabitants. It follows also that heat generally diminishes with the increase of distance from that line, because as we recede from it toward the poles the mid-day height of the sun becomes less and less, till his rays are too oblique to prevent nature from being chained in eternal ice and render it capable of supporting vegetable life.

237. The time during which the sun is above and below the horizon is also an important element of climate. When the days are long, the continued solar action causes a powerful accumulation of heat, and, the nights being short, but little of this heat is radiated. The effect, of course, is opposite in inverse circumstances. Under the equator, the days and nights being of equal length throughout the year, no great differences of temperature or seasonal contrasts are experienced. There is but little variation also in the length of the day within the tropics. But in mean and high latitudes the inequality becomes great; and the long days coinciding with the northern declination of the sun when the solar rays fall less obliquely, and the short days with his southern declination when the opposite takes place, alternations of excessive heat and cold or great seasonal contrasts are produced.

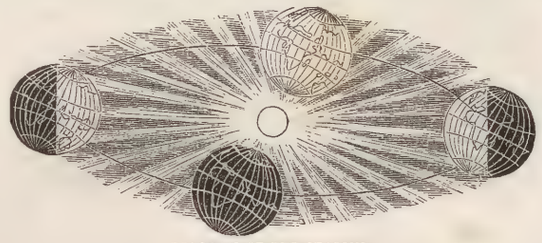


DIAGRAM OF THE SEASONS.

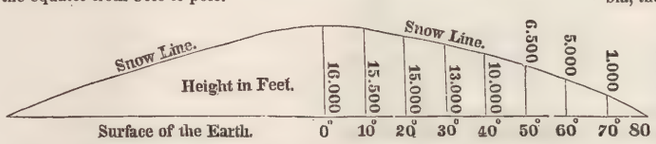
The farther from the equator the more unequally is temperature diffused throughout the year, and winter and summer in more violent contrast.

238. Supposing the globe to have a perfectly level surface, either of land or water possessing the same character, the decrement of heat from the equator to the poles would coincide with the parallels of latitude, so that all places under the same parallel would have the same climate. But actual circumstances are far different from the postulate; and hence a "second" determining cause of climate is the elevation of the surface.

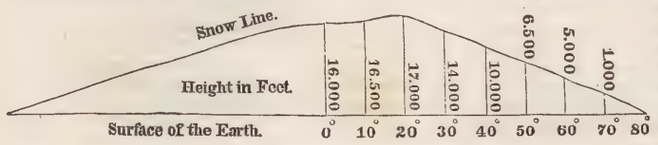
239. It is a well-ascertained fact that the temperature of the air decreases with its height. This arises from the atmosphere not being heated by transmitting the rays of the sun, but receiving its heat solely from the warmed surface of the earth, and chiefly by actual contact. Hence its temperature becomes lower with its distance from the general mass of the globe. Another reason is its tenuity increasing with its elevation, the temperature of rarefied air being less raised by a given amount of heat than that of the same portion of air when compressed.

240. In general the temperature decreases 1° for about every 352 feet; but the rate varies with the latitude, the season, and even the hour of the day. The decrease is greater in summer than in winter; more sensible in the afternoon than in the morning, and is affected by the presence or absence of atmospheric electricity, moisture, etc.

241. In every latitude, therefore, there is a limit in the atmosphere where the thermometer never rises above 32° Fahr., and consequently where ice and snow remain in a solid form. This limit, called the snow-line or line of constant congelation is the highest in the torrid zone, where the heat is the greatest. It rises to about 16,000 feet near the equator, and from thence descends gradually in the form of a curve toward the poles, till it reaches the surface at about 80° north, and at a lower latitude in the southern hemisphere. The diagram represents this line forming the arc of an ellipsoid passing over the equator from pole to pole.



This diagram, however, but very distantly answers to this important line in the atmosphere. Though oscillating with the surface in high latitudes, and occurring at a considerable elevation in the horizon, it does not form a regular curve in its descent, but exhibits various inflexions, suddenly rising and falling in several districts, owing to their physical peculiarities. Thus in the Bolivian Andes, between 14° and 20°, the line of perpetual snow is higher than in the equatorial regions of the chain, and higher than in its Mexican prolongation at the same latitude in the northern hemisphere. Making allowance for this exception, the diagram should not exhibit a continuous curvature, but be corrected as follows:



A remarkable sudden fall of the Andean snow-line occurs farther south, exhibiting a difference in elevation of 9,000 feet within a distance of only 10° of latitude. This great flexure is attributed to the fact of the southern Cordillera (43°) being covered with forest trees dripping with moisture, indicating a clouded sky and little heat in summer, while in central Chile no rain falls for the seven summer months, the sky is generally clear, and the climate hotter.

242. The line of perpetual snow sometimes varies in equal latitudes, because the summers are warmer in the interior of continents than on the coasts. Thus, though the Pyrenees and the Caucasus are under the same parallel, the snow-line varies to the extent of 2,100 feet. An important distinction is also of frequent occurrence on opposite sides of mountains. Thus the snow-line is much higher on the north side of the Himalayas than on the southern side; and thus with the Scandinavian chain the line is lowest toward the sea and highest toward the land. In such cases the phenomenon results from a greater or less radiation of heat from the adjacent surfaces.

243. It is obvious, therefore, that countries which are at different elevations, though in the same latitude, must have different climates; and that in the same country there may be great diversity of climate co-existing, according as the surface is more or less elevated. Hence, while the tropical valley or plain is oppressively hot and loaded with luxuriant vegetation, the tropical mountain, rising a few thousand feet above it, is as cold and as bare of vegetation as any polar island. Successive zones characterized by a different flora mark the climatic variations resulting from a change of level. Thus in Mexico, where there are low coasts, high table-lands, and mountains covered with eternal snow, there are distinct and well-defined physical districts. The *tierras calientes* (hot regions), which include the coast country, east and west, below the height of 2,000 feet, have a mean temperature of about 77° Fahr., and here bananas and the sugar, indigo, and cotton plants flourish luxuriantly. The *tierras templadas* (temperate regions), between 2,000 and 5,000 feet, have a mean temperature from 68° to 70°, and produce oaks, cypresses, and fern trees; and the cultivated cereals of temperate climates are first encountered. In the tierras templadas (cold regions), above the height of 5,000 feet, the air is still genial to the elevation of 8,000 feet, but beyond the climate becomes rigorous, fruits are not matured, oaks and wheat disappear, and pines occur. Above the regions of forests there is a region of stunted pines, and still higher up a region of Alpine plants, and at a greater height only a few lichens appear.



VIEW IN MEXICO.

244. A "third" cause of climatic variations in equal latitudes is found in the position of countries being marine or continental. The ocean is not so rapidly heated nor so soon deprived of heat as the land, and hence its temperature is more uniform than that of inland districts. The currents which sweep over it transfer the same character to some extent to the shores within their range, and in the same ratio affect their climates, making them more equable. On the sea-side the winters are mild and the summers cool as compared with inland places, where the winters are cold and the summers hot. Another cause contributing to the same effect is the immense evaporation from the sea, producing a frequently overcast sky along its shores. The clouds temper the solar influence in summer and check radiation in winter.

245. The circumstances above stated have a marked effect on vegetation. On the south coast of England, where the winter is not colder than at Florence, the camelia and fuchsia live through it in the open air; and in the northeast of Ireland the myrtle thrives as well as in Portugal, 15° farther south. On the other hand, at Yakutsk, in Siberia, where the mean annual temperature is less than 14° Fahr., and the winter temperature is considerably under zero, the subsoil remaining constantly frozen at the depth of three feet, wheat and rye are raised owing to a hot summer; while in Iceland, where the mean annual temperature is very much higher, none of the cereals are raised, owing to the cool summer not allowing them to ripen.

246. Lines drawn through places of like summer temperature are termed isotheral, signifying equal summer; and lines connecting places of like winter temperature are called isochimenal or equal winter lines.

247. The prevailing winds of a country form a "fourth" determining cause of its climate, because bringing with them a part of the properties of the quarters from whence they come and the surface over which they have passed. In a calm state of the atmosphere the effect of one region upon the temperature of another contiguous to it is probably small; but its colder or warmer air is transferred to the adjoining locality, with the wind blowing in that direction, and the thermometer falls or rises. At Bagdad and at Bushire, under the influence of the south wind, heated by the burning sands of Arabia, the thermometer sometimes rises to 125°, and indicates the same degree of heat in Upper Egypt when the wind blows from the Desert.

248. The soil of a country and the aspect of a place are also important constituents of a climate. A surface consisting of sand admits of a higher degree of heat than clayey and compact soil, and bare grounds than pasture lands. The effect of aspect is most strikingly seen in mountainous districts where, as a general law, vegetation ascends in the northern hemisphere to a higher limit on the southern than on the northern declivities; and *vice versa* in the southern hemisphere.

249. Considerable deviations from the usual climatic state sometimes occur, spreading over wide districts; but it has been remarked that no instance can be cited of a deviation extending to an entire hemisphere, so that it is highly probable, as before observed, that the same quantity of heat is always distributed over the earth's surface, although unequally. These peculiar atmospheric states are more frequently propagated in a meridional than in a parallel direction, opposite conditions existing under opposite meridians. The Danes have observed that unusually moderate winters in Iceland correspond to intense cold at Copenhagen. Generally speaking, the same deviations occur in Europe and Asia, the opposite in America, or Asia and America are in opposite climatic conditions, while Europe is unaffected by either extreme. The more marked deviations from the usual range of heat occur more frequently in winter than in summer.

250. While the general temperature of the globe appears to have suffered no perceptible change during the historic era, there is strong reason to suppose that the climatic condition of particular districts has undergone some gradual alterations. The climate of western Europe seems to have acquired a more genial character, seasons of intense cold occurring at more distant intervals than formerly; and in the settled portions of North America the climate is perceptibly milder than when first occupied. The clearing of forests and the extinction of bogs and morasses have doubtlessly had a powerful influence to this end.

ISOTHERMAL LINES.

251. Isothermal Lines, as traced on a map, connect all points having the same *observed* mean annual temperature. Hereby is afforded a distinct view of the actual distribution of heat as distinguished from *latitudinal* heat, were the latter not modified by the various influencing causes of climate, and the curves in connection with the geographical outline exhibit also in what the modifying causes originate, as seas, mountains, etc.

252. Near the equator the isothermals exhibit no great divergence; but at a distance farther and farther from it north and south their inflections become remarkable, ranging in their circuit round the earth through 20° and 25° of latitude. On account of these great variations of heat, consequent on local causes, it is impracticable to define zones of climate by astronomical lines or by lines of latitude; nor can these be demarked with any degree of exactitude otherwise than by isotherms or zones of equal temperature. Attending only to the isotherms, five climatic zones may be discriminated—the hot, warm, temperate, cold, and frigid.

253. The Hot Zone is bounded on each side of the Warmth Equator by the isotherm of 80° Fahr. It includes the north extremity of Australia, the islands and peninsulas of southern Asia, the middle regions of Africa, and the northern half of South America, with Central America and the southern islands of the Columbian Archipelago. In this region at the sea-level frost and snow are unknown. Vegetation is luxuriant and perennial in the well-watered districts; but in the Old World burning deserts of sand prevail, altogether barren where moisture is wanting.



SCENE IN THE HOT AND WARM ZONES.

254. The Warm Zone lies between the isotherms 80° and 70°, and includes in the northern hemisphere Mexico, Cuba, and Florida, northwest and northern Africa (except a portion of the Barbary States), northern Arabia, almost the whole of Persia, northern India, Burmah Siam, and southern China, and the greater part of the Philippine Islands. The characteristics of this region are much the same as those of the Hot Zone. It embraces a vast area of bare rock and barren sand; but in districts favored by a sufficient supply of moisture, vegetation is luxuriant.

255. The Temperate Zone is bounded by the isotherms of 70° and 80° Fahr., and includes a large section of North America and central Asia, Iceland, almost the whole of Europe, and a small strip of northern Africa. In its southern portion we have the northern limit of the Region of Palms, and the principal districts of the cultivation of the vine. Its northern boundary in Europe nearly corresponds with the most northern limit of the cultivation of barley and rye and the appearance of trees. In America its southern section includes the great planting regions of the United States. In this zone man has in all ages attained the highest development of his powers, and the most civilized nations have been located in it.



SCENE IN THE TEMPERATE ZONE.

256. The Cold Zone is between 30° and 10° Fahr., and includes the countries around Hudson's Bay, most of Labrador, Greenland, Spitzbergen, Nova Zembla, part of Lapland, and part of north Russia, and the most considerable portion of Siberia. Through a great part of this region the soil at a varying depth remains permanently frozen, even in latitudes in Asia as low as that of London; but to a varying extent the surface is thawed by the powerful temperature of a brief summer, so that most of the cereals ripen, and harvests of wheat, barley, and rye are gathered above subterranean sheets of eternal ice. Larch and some pines exist on the southern border of this zone. Recent inquiries, indeed, have demonstrated that the larch survives even where the ground is perpetually frozen.



SCENE IN THE COLD AND FRIGID ZONES.

257. The Frigid Zone is bounded by the isotherm of 10° Fahr. It includes the countries in America north of Hudson's Bay and a section of northern Asia. The isothermal lines of America and Asia in these high latitudes, however, are not consecutive, but entirely separate, surrounding the two poles of maximum cold, neither of which coincides with the pole of the earth's diurnal motion. It is supposed also that two similar poles exist in the southern hemisphere, but observations are wanting to verify the fact. The effect of cold upon vegetation is most apparent in this zone. The larch and birch pass within its limits, but they are stunted in form and soon disappear.

ELECTRICAL PHENOMENA.

258. Of electricity in itself we know nothing more than that it is a mighty imponderable agent, called simply for convenience a fluid; invisible when in a latent state, apparently universally diffused, and capable of penetrating the pores or even the substance of matter. It may be roused from a neutral condition and made visible, displaying tremendous energies by a variety of causes, as heat, friction, and chemical action; but we are totally ignorant of the reason why these causes elicit it. In meteorology, however, we have merely to deal with it as developed in the atmosphere, its phenomena, effects, and distribution.

259. There are two kinds of electricity, each having peculiar properties: but whether there are really two different electricities, or one electric fluid which displays peculiar properties according to its amount, is a point upon which philosophers are not agreed. Bodies in one electric state attract and in another repel each other. The electricity in the former case is called "vitreous" or *positive;* in the latter, "resinous" or *negative.* Bodies having positive and negative electricity in equal diffusion, or in a state of equilibrium, neither attract nor repel. This is their ordinary or normal condition.

260. When the equilibrium is destroyed, and the two electricities are par-

tially separated by friction, heat, or chemical action, their peculiar powers become manifest. Two bodies charged with the same kind of electricity mutually repel; and two bodies charged with different kinds mutually attract. In the case of two neighboring bodies differently yet highly electrified, the one body imparts a portion of its electricity to the other, which returns an equal quantity of its antagonist element, and the derangement is equalized—the normal state restored. The two electricities coalesce with immense rapidity, causing a flash and an explosion, upon which the electric fluid returns to a latent and neutral condition, till a fresh derangement in the distribution is produced.

261. Though, strictly speaking, there is no known substance perfectly impervious to electricity, and which offers no resistance to its passage, there is a certain class of substances through which it passes with greater facility, as metals, water, the animal body, etc., than through others, as glass, silk, atmospheric air, etc. The former substances are therefore styled "conductors"—the latter, "non-conductors." In conductors it is impossible for electricity to accumulate unless they are surrounded by non-conductors. They are then said to be insulated.

262. While the earth itself is always charged with negative electricity, the atmosphere in a cloudless and clear state of the sky is almost invariably found to be positively electric. But its electricity varies in intensity, being greater in winter than in summer, during the day than by night, and subject also to a kind of diurnal flux and reflux. From sunrise, when the atmospheric electricity is feeble, it increases for two or three hours and attains its maximum. It declines toward the middle of the day, and attains its minimum in the afternoon. It then advances sensibly till about sunset, and attains a second maximum, usually equaling that of the morning, but lasting a shorter time, after which it decreases slowly through the night. These regular oscillations can only be traced in calm and serene weather.

263. While masses of visible vapor or clouds are good conductors of electricity, they are yet capable of electrical accumulation, because capable of being insulated, the air in proportion to its dryness being one of the most complete non-conductors known. M. Peltier, from observations and experiments made at Paris, has drawn the conclusion that all gray and slate-colored clouds are charged with negative, and all the white, rose, or orange-colored clouds are charged with positive electricity If two clouds in these states approach within a certain distance, the effect is an accumulation of their respective electricities on the sides that are nearest to each other. When the accumulation becomes intense the resistance of the intervening and insulating atmosphere is overcome, and an interchange takes place—there is a flash and detonation caused by the union of the two electric forces, or lightning and thunder. The same interchange frequently takes place between a cloud and the earth with the same phenomena.

264. Lightning in its course follows the best conductors, attaching itself principally to metals, and after metals to damp substances; but inferior conductors may be chosen, which present to the fluid the most direct route to the earth. Hence objects raised above the surface, whether good or bad conductors, are peculiarly exposed to the stroke of lightning, as steeples, houses, trees (especially solitary ones), the masts of ships, animals in the midst of a plain, and men on high points. Other circumstances being equal, there is greater safety on a non-conducting than on a conducting surface.

265. Coincidently with Franklin's celebrated discovery of the electric nature of lightning the means were suggested by him of protecting edifices from its ravages by conductors in direct communication with the ground, presenting to the fluid an easier passage than that offered by the materials of the building. For this purpose metallic rods are used, slightly projecting above an edifice, the object being not to invite the electricity, but to carry it off innocuously in case of an attack; and experience has shown that such a conductor is able to protect a circle having a diameter of about 20 yards. The same means are employed with success to protect ships.

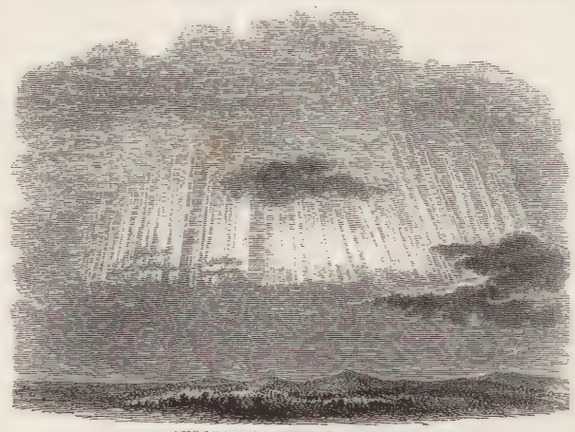
266. Thunder is the report of the electric discharge, heard at varying intervals after it arises from the violent displacement of the air by the fluid in its passage, and its rush back into the partial vacuum created. The rolling of the sound is due partially to reverberation and in part to the report from different points in the track of the lightning reaching the ear in succession. Thunder follows the lightning because sound travels slower than the luminous sensation; the noise makes its deep impression rather by its volume than by its intensity. The loudest thunder can scarcely be heard at the distance of ten miles, and is less intense, therefore, than the report of heavy artillery.

267. Lightning without thunder, usually termed heat lightning, perfectly harmless, is often observed after sunset and during the night. By some it is attributed to the air being humid, and therefore favorably disposed for the conduction of the electricity, occasioning very frequent but weak discharges, so that no report is heard, and the flash is invisible by day because of its feebleness. Others regard these lights as reflections of the lightnings of storms situated below the horizon, no thunder being heard because of the distance. There are numerous other phenomena due to electricity and owing to its simple communication in a strong degree. It becomes visible in the form of pale-colored flames quivering on the extremities of bodies which are non-conductors or insulated conductors, as the points of spears and other military weapons, the manes and tails of horses, the top-masts and yard-arms of ships, etc. In showers of rain and snow the drops have been observed to be luminous, owing to a strong charge of electricity in the air. Mariners' Light or St. Elmo's Fire, often remarked by the ancients, is a phenomenon of this description. These phenomena, however, are so various as to preclude individual description.

268. Electricity sympathizes generally with light and heat in its geographical distribution, diminishing from the equator to the poles. Hence it is within the tropics that thunder-storms are the most frequent, and at the same time the most violent. The coast line of Peru, however, where it never lightens nor thunders, is a remarkable exception. The comparative number of storms becomes less and their tone more subdued as we recede from the equator. In polar latitudes electrical explosions are seldom heard, and in some places are entirely unknown.

269. Magnetism, which extends its influence over every part of the earth's surface, was long supposed to be related to electricity, from the fact of lightning often rendering steel magnetic, and disturbing the magnetic needle, so that in thunder-storms a ship's compass has frequently been seriously injured. The two forces are now known to be identical or rather but different forms under which the same power manifests itself. The phenomena of terrestrial magnetism are of infinite importance to science, and especially to the science of navigation, but must be studied in special treatises on the subject.

270. The meteoric display occasionally seen in the heavens, the Aurora Borealis or Australis, the northern or southern lights, as the case may be, is



AURORA OF LOWER LATITUDES.

unquestionably of electro-magnetic origin, for it may be artificially imitated by passing a current of electricity through an exhausted receiver; violent disturbances of the magnetic needle precede and accompany its appearance, and light has been evolved by magnetic power. In the course of the day, says Humboldt, on which the lights are to appear, irregular horary movements of the magnetic needle usually indicate an interruption of equilibrium in the distribution of the terrestrial magnetism. When this disturbance has attained a great intensity, the equilibrium of the distribution is restored by a discharge accompanied with an evolution of light. The splendid phenomenon of colored northern lights is the act of discharge, the conclusion of a magnetic storm. In the same way as in the electrical storm, lightning indicates the restoration of the disturbed equilibrium in the distribution of electricity.

271. Auroral displays are very diversified, not only at different periods, but the same exhibition usually shifts through a succession of phases. Sometimes only flickering lights are seen streaming up from beneath the horizon toward the zenith; but in the more perfect and gorgeous appearances of high latitudes there is generally a dark segment, sometimes black or of a deep gray, passing to violet, surmounted by a luminous arc of a brilliant white color, passing slightly to blue, and occasionally a second arc concentric with the first, their culminating points being in the magnetic meridian. The arc seldom remains stationary for more than a few minutes, but extends itself laterally, or rises and falls or breaks in various places or bends in convolutions like a ribbon exposed to the wind, while rays of almost every hue—the



AURORA OF HIGH LATITUDES.

"merry dancers" of the polar sky—are incessantly darting from it toward the zenith. In certain districts auroral appearances seem to observe a secular period, being frequent through a certain cycle, and becoming as rare through another. By day, and even in bright sunshine, owing to their intensity, the aurora has been frequently observed in the north.

272. While the magnetic and electrical storms have one phenomenon in common—the evolution of light—the sphere of the latter is comparatively contracted, while that of the former embraces vast areas, extending sometimes to entire continents. This is indicated by the magnetic needle showing disturbance at the same time at widely remote points, and by isolated auroræ being observed simultaneously at far distant stations. The aurora australis has been seen through a wide range of latitude as far south as 45° in the southern hemisphere; while the aurora borealis has been seen as high as 51° in the northern hemisphere.

273. The auroral lights, to us merely objects of curiosity and fascination, are of great practical utility to the natives of high latitudes, relieving their dreary winter night and compensating for the long-continued absence of solar illumination.

ORGANIC LIFE—PLANTS AND ANIMALS.

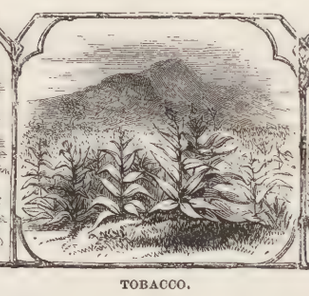
Having examined the solid, liquid, and aeriform parts of the terrestrial globe, the next subject to be treated upon are those innumerable living or organized beings which exist upon its surface, and which range themselves under two great heads—Plants and Animals.



SUGAR-CANE AND RICE.



COTTON.



TOBACCO.



TEA.



COFFEE.



INDIAN CORN.

PLANTS—THEIR KIND AND DISTRIBUTION.

274. Vegetation occurs over the whole globe, and under the most opposite conditions. There is only one state which appears to be fatal to its existence—the entire absence of humidity. Plants flourish in the bosom of the ocean as well as on land, under the extremes of cold and heat in the polar and equatorial regions, on the hardest rocks and the soft alluvium of the plains, amid the perpetual snow of lofty mountains and in springs of the temperature of boiling water, in situations never penetrated by the solar rays as well as in positions freely exposed to light and air. But these diverse circumstances have different families, species, and genera.

275. The known number of species in the vegetable kingdom has been gradually enlarged by the progress of maritime and inland discovery; but owing to great districts of the globe not having yet been explored by the botanist, the interior of Africa and Asia with sections of America and Oceanica, it is impossible to state the exact amount. Only 1,400 different species were known to the Greek and Roman botanists; Linnæus enumerated 8,800 species; Humboldt 38,000; De Caudolle 56,000; Lindley 86,000, and Hurds 89,000. The whole number now known to the botanist may number perhaps 100,000 species, and even this vast diversity may not have exhausted the objects of inquiry.

276. Vegetable forms are divided into two great classes, which differ materially in their structure—Cryptogamous Plants: those which have no flowers properly so called, as mosses, lichens, fungi, and ferns; and Phænogamous or flower-bearing Plants. The last-named class is again divided into—Endogenous Plants, which have stems increasing from within, also called Monocotyledons, from having only one seed-lobe, as the numerous grasses, lilies, and the palm family; and Exogenous Plants, which have stems growing by additions from without, also called Dicotyledons from the seed consisting of two lobes, the most perfect, beautiful, and numerous class, embracing the forest trees and most of the flowering shrubs and herbs.

277. The Cryptogamous Plants afford the most numerous examples of wide diffusion. A lichen indigenous in Cornwall is also a native of the West Indies, Brazil, St. Helena, and the Cape of Good Hope; while 38 lichens and 28 mosses are common to Great Britain and Australia, though the general vegetation of the two districts is remarkably discordant. Some species of the endogenous plants are also widely distributed, the "phleum alpinum" of Switzerland occurring without the slightest difference at the Strait of Magalhaens, and the quaking grasses of Europe in the interior of South Africa. But only in very few instances are the same species of exogenous plants met with in regions far apart from each other; and generally speaking, in passing from one country to another, a new flora is encountered.

278. In equinoctial and tropical countries, where a sufficient supply of moisture combines with the influence of light and heat, vegetation appears in all its magnitude and glory. Its lower orders—mosses, fungi, and confervæ are very rare. The ferns are aborescent. Reeds ascend to the height of a hundred feet, and rigid grasses rise to forty feet. The forests are composed of majestic leafy evergreen trees bearing brilliant blossoms, their colors finely contrasting, scarcely any two standing together being of the same species. Enormous creepers climb their trunks; parasitical orchidæ hang in festoons from branch to branch, and augment the floral decoration with scarlet, purple, blue, rose, and golden dyes. Of plants used by man for food or as luxuries or for medicinal purposes occurring in this region, rice, bananas, dates, cocoa-nut, cacao, bread-fruit, coffee, tea, sugar, vanilla, Peruvian bark, pepper, cinnamon, cloves, and nutmegs are either characteristic of it as principally cultivated within its limits or entirely confined to it.

279. Tropical families and forms successively vanish with an increase of distance from the equator, and new phases of vegetation mark the transition from hot to temperate climates. Vividly green meadows abounding with tender herbs replace the tall rigid grasses which form the impenetrable jungle; and instead of forests composed of the towering evergreen trees, woods of the deciduous class appear, which cast their leaves in winter and hybernate in the colder season—the oak, ash, elm, maple, beech, lime, alder, birch, and sycamore. The cultivation of the vine becomes characteristic with the perfection of the cereal grasses and a larger portion of herbaceous animals and cryptogamous plants.

280. Receding farther from the equator, magnificent forests of the fir and

THE WORLD

Showing the GEOGRAPHICAL DISTRIBUTION & Range of

THE PRINCIPAL MEMBERS OF THE

ANIMAL KINGDOM

The general Range of the principal Animals is shown, either by continuous lines, drawn below their names, or by the various dotted lines, which mark their limits of distribution. Nearly the whole of those here illustrated belong to the class **Mammalia.**

Entered according to Act of Congress in the Year 1858 by J. H. Colton & Co. in the Clerks Office of the District Court of the United States for the Southern District of New York.

THE WORLD

Illustrating the

PRODUCTIVE INDUSTRY

OF VARIOUS COUNTRIES,

& exhibiting the principal features of

COMMERCE & NAVIGATION

Entered according to Act of Congress in the Year 1858 by J. H. Colton & Co. in the Clerks Office of the District Court of the United States for the Southern District of New York.

pine tribe prevail, as in North America, in the central parts of Russia, on the southern shores of the Baltic, and in Scandinavia. But some of the cereals are no longer cultivable, and several timber trees common to the temper-



BANANA AND COCOA-NUT.

ate zone do not reach its northern limits. Gradually all ligneous vegetation disappears entirely as high latitudes are approached, the woods having first dwindled to mere dwarfs in struggling with the elements, hostile to that state which nature destined them to assume. The limit of the forests is a sinuous line running along the extreme north of the Old World, and extending from Hudson's Bay (lat. 60°) to the Mackenzie River (lat. 68°), and thence to Behring's Strait in the New World. The dwarf birch (betula nana), a mere bush, is the last tree found on drawing near the eternal snow of the pole. In the polar zone some low flowering annuals, as saxifragi, ranunculi, gentians, chickweeds, etc., flourish during the brief ardent summer; a few perennials also accommodate themselves to the rigorous climate by spreading laterally, never rising higher than four or five inches from the ground; till finally no



PINE FOREST.

development of vegetable life is met with but lichens and the microscopic forms that color the snow.

281. Thus distinct vegetable regions are observed on passing from the equator to the poles through different climatic zones, defined as to their limits by the isothermal curves and not by the parallels of latitude. Similar changes of vegetation mark a perpendicular transit through varying climates. A succession of plants appears on the tropical mountains which rise above the snow-line, corresponding to those which are encountered in mean and high latitudes. The higher the ascent the more does the number of the phænogamous class diminish in proportion to the cryptogamous, till only members of the latter class are found whose farther progress upward is arrested by the everlasting snow.

282. There are many plants which can accommodate themselves to the most diverse climates and localities; and therefore ascend from the plains close to the boundary of vegetable life on the highest mountains. But it is the general law in these cases for such plants to be singularly modified in appearance and anatomical structure as they ascend. The spring gentian is one of the exceptions which is found unaltered at all heights in the Pyrenees.

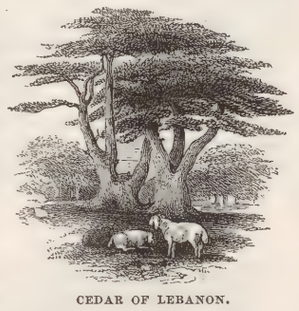
283. The preceding references to different climatic states are, however, perfectly inadequate to explain the phenomena of vegetable distribution. While an analogy is often observable between the plants of different regions under corresponding circumstances of latitude, elevation, and soil, the species are generally found to be different; and usually the botanical character of countries not widely apart from each other is totally different, though under the same parallels.



CACTUS.

284. Some plants are entirely confined to one side of the earth. The beautiful genus erica or heath, of which there are upward of 300 species, occurs with breaks over a narrow surface extending from a high northern latitude to the Cape of Good Hope. But the whole continent of America does not contain a single native specimen; nor has a "peonia" been found in it, except a solitary one to the west of the Rocky Mountains. On the other hand America contains many families, as the cacti, which are not found naturally in the Old World.

285. And again, some plants occur in a single specific locality, frequently a contracted area and nowhere else. The beautiful "disa grandiflora" is limited to a spot on the top of the Table Mountain at the Cape of Good Hope; and the celebrated Cedar of Lebanon appears to be restricted in its spontaneous growth to the Syrian Mountains. The small island of St. Helena has an indigenous flora with a few exceptions different from that of the rest of the globe.



CEDAR OF LEBANON.

286. Mountain chains of no great breadth very commonly divide a totally distinct botany. There is a marked difference in the vegetation on the Chilean and opposite side of the Andes, though the climate as well as the soil is nearly the same and the difference of longitude very trifling. In North America two completely different classes of vegetation appear on the two sides of the Rocky Mountains. A variety of oaks, palms, magnolias, azaleas, and magnificent rhododendrons occur on the eastern side, all of which are unknown on the western, the region of the gigantic pine.

287. The distinct vegetation possessed by various parts of the globe has led to its division into botanical kingdoms or phyto-geographical regions, named in general after the genera that are either peculiar to them or predominant in them. The arrangement of M. Schouw, which is usually adopted, discriminates twenty-five great provinces of characteristic vegetation upon the surface of earth.

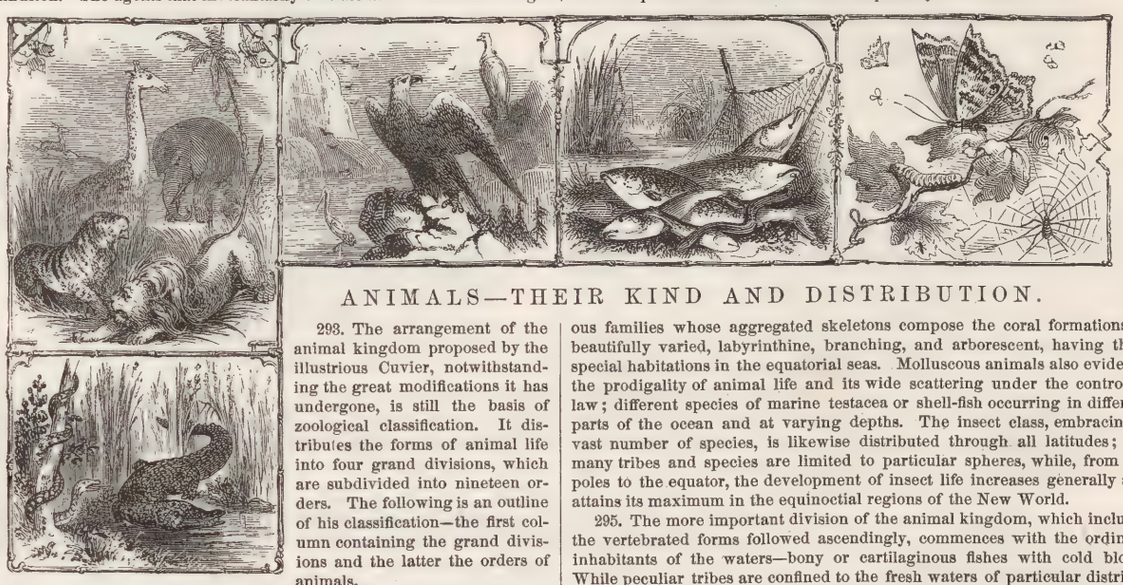
288. The phenomena of botanical geography and the facts of geology are mutually illustrative. The existing dry land having been upheaved above the waters at different epochs, it may be reasonably inferred that each portion on its emergence received a vegetable creation in harmony with its position. The ultimate constitution of the general surface into different botanical kingdoms would hence follow, each of which has preserved its primitive features, while adjoining and even far distant foci have to some extent intermingled their respective products, under the control of the natural agencies of diffusion. The agents that involuntarily officiate in the diffusion of vegetable products are the atmosphere, the water, and many animals; and plants capable of extended naturalization and serviceable as articles of food or luxury have been widely disseminated by the human race in their migrations.

289. The cerealia or corn plants afford the most striking example of the agency of man in their diffusion over the world. These important grasses known to the ancients—wheat, barley, oats, and rye—were the gifts of the Old to the New World. They are also importations into Europe; but the loose reports of the ancients and the diligent researches of the moderns alike leave us in ignorance of their native seat. Probability points to the conclusion that they have spread from the neighborhood of the great rivers of western Asia, the primitive location of the human family; and it is not impossible that in that imperfectly explored district or farther east in the Tartarian table-land some of the cereals may yet be found growing spontaneously. The first wheat sown in North America consisted of a few grains accidentally found by a negro slave of Cortez among the rice taken for the support of his army. In South America the first wheat was brought to Lima by one of the early colonists, a Spanish lady, Maria d'Escobar. An ecclesiastic, José Rixi, was the first to sow wheat in the neighborhood of Quito.

290. Maize or Indian corn has been dispersed in the Old from the New World; and also a more important product, the potato, the use of which now extends from the extremity of Africa to Lapland. In Chile, the native country of the plant, it occurs at present in a wild state. The Spaniards imported it into Spain, and from thence it was communicated to Italy. It was first made known in England at a subsequent period from Virginia, having been received there from the Spanish colonists in South America, as it is not a native of intervening Mexico.

291. The grapevine, so extensively spread over Europe, is probably not indigenous in any part of it. It chiefly owes its diffusion in Europe to the Romans, who received it from the Greeks, to whom it most likely came from the country between the Black and Caspian seas. The Romans introduced most of the finer European fruit-trees, some from Africa, as the pomegranate, but the great majority from western Asia, as the orange, fig, cherry, peach, apricot, apple, and pear. A variety of the plum, the Damson or Damascene, came from the neighborhood of Damascus during the Crusades; and the name of the Damask-rose points to the importation of the plant from the same quarter into Europe. Most, if not all, of these have been naturalized in America, having been imported along with its present people.

292. The ocean as well as the land has different botanical regions; and changes of the vegetation are observed with the depth analogous to the variation of terrestrial plants with the height. Marine vegetation seems to have its vertical extent determined by the sub-aqueous range of light which varies with the power of the sun and the transparency of the water.



ANIMALS—THEIR KIND AND DISTRIBUTION.

293. The arrangement of the animal kingdom proposed by the illustrious Cuvier, notwithstanding the great modifications it has undergone, is still the basis of zoological classification. It distributes the forms of animal life into four grand divisions, which are subdivided into nineteen orders. The following is an outline of his classification—the first column containing the grand divisions and the latter the orders of animals.

VERTEBRATA or *Vertebrated Animals*—having a vertebral column, which, with its termination, the skull, incloses and protects the brain and spinal cord, the central organs of the nervous system.	1. Mammalia—animals which produce their young alive and for a time suckle them. 2. Aves or birds, with warm blood. 3. Reptilia—reptiles, with cold blood. 4. Pisces—fishes, with cold blood.
MOLUSCA or *Molluscous Animals*—animals of a soft texture and no skeleton, having the muscles attached to the skin, which produces in many species stony coverings or shells.	5. Cephalopoda (heads furnished with feet)—cuttle-fish, nautilus, etc. 6. Pteropoda (wing-like feet)—clio, the chief food of the whale, thyalæ, etc. 7. Gasteropoda (creeping on the belly)—slug, snail, limpet, whelk, etc. 8. Acephala (headless)—oyster, muscle, etc. 9. Brachiopoda (arm-like feet)—bivalve shells. 10. Cirrhopoda (thread-like feet)—barnacle, etc.
ARTICULATA or *Articulated Animals*—animals consisting of a number of articulated joints or rings, soft or hard, supplying the place of a skeleton.	11. Annelida—worm, leech, etc. 12. Crustacea—crab, lobster, shrimp. 13. Arachnida—spider, scorpion. 14. Insecta—insects of various families.
RADIATA or *Radiated Animals*—animals which in many instances have their organs arranged like rays proceeding from a center; also called zoophytes or plant-animals from the resemblance of some families to vegetable forms.	15. Echinodermata (εχίνος, spiny, and δερμα, the skin)—star-fish, sea-urchin, etc. 16. Entozoa (εντος, within, and ζωον, an animal)—intestinal animals, as the tape-worm, etc. 17. Acalephæ (ακαλήφη, a nettle)—medusa or sea-nettle, etc. 18. Polypi (πολυς, many, and πους, a foot)—sea-anemone, coral, madrepore, etc. 19. Infusoria—microscopic animals.

294. The animal kingdom corresponds with the vegetable in the exuberance and wide diffusion of its inferior organisms. Infusoria occur in numbers which baffle the power of arithmetic to express or the mind to conceive, living in every variety of situation—in the bed and waters of the ocean, in stagnant pools, in the mud of rivers and deltas, in marsh grounds, in animal and vegetable juices, in rain, snow, ice, boiling springs, and in peat-earth, twenty feet below the surface soil. Zoophytes occupy the oceanic waters in vast profusion, from the equator to the highest latitudes; the polypi of various families whose aggregated skeletons compose the coral formations so beautifully varied, labyrinthine, branching, and arborescent, having their special habitations in the equatorial seas. Molluscous animals also evidence the prodigality of animal life and its wide scattering under the control of law; different species of marine testacea or shell-fish occurring in different parts of the ocean and at varying depths. The insect class, embracing a vast number of species, is likewise distributed through all latitudes; but many tribes and species are limited to particular spheres, while, from the poles to the equator, the development of insect life increases generally and attains its maximum in the equinoctial regions of the New World.

295. The more important division of the animal kingdom, which includes the vertebrated forms followed ascendingly, commences with the ordinary inhabitants of the waters—bony or cartilaginous fishes with cold blood. While peculiar tribes are confined to the fresh waters of particular districts, each large basin of the ocean appears to have its distinct genera and species.

296. The carp and perch types appear in almost all the rivers of the temperate zone. The electric eel inhabits the rivers and pools of equinoctial America; the "silurus electricus" the rivers of Africa, and the "torpedo" the Mediterranean Sea. Sharks roam in the deep, open oceans of warm climates. Sturgeons occupy land-locked waters. The cod dispersed through the North Atlantic congregate chiefly upon its banks. Flying-fish are principally inter-tropical, their most active enemies, the "coryphanæ" (gilt-heads), observing the same limits. Almost all the fish of the Caspian Sea are specifically distinct from those in all other waters. Several kinds of fish, as the herring, tunny, etc., are eminently social and migratory, and annually leave the ocean for shallow water in vast shoals for the purpose of spawning or in search of food.



BOA CONSTRICTOR.



COBRA DE CAPELLO.

297. Reptiles (tortoises, lizards, serpents, and frogs), the next order, occupy the lowest rank among terrestrial vertebrata. They diminish in number, magnitude, and noxiousness from the equator to the poles; and have their maximum development in the equatorial regions of South America. Each family is represented in the two hemispheres, but not a single species appears to belong to both. Of the serpent tribe, rattlesnakes of four species are exclusively American; the larger boas are so likewise, while the pythons are African and Asiatic. Of crocodilians,

consisting of three genera, the crocodile proper is distributed in the Old and New worlds, but the species differ; the alligator or cayman is confined to America, and the gavial is limited to the great rivers of India. No living



CROCODILE.

crocodilian has ever been known in Europe; and excepting the Marianne Islands, all the reptile tribes are entirely wanting in the island groups of Oceanica. Very few reptiles reach the north boundary of the temperate zone, taking the isotherm of 50° Fahr. for its limit. Frogs and salamanders go the farthest north.

298. Birds, the members of the succeeding order, have a more perfect



CONDOR.

organization; and being endowed with the power of rapid locomotion, several species are wide geographic rangers. This is the case with the house-sparrow, common crow, gosshawk, jay, raven, osprey or fishing eagle, cliff-swallow, and others. But the majority of species are restricted by geographical laws to particular districts, and have in many instances a very local existence. The far-famed birds of paradise are confined to New Guinea and the neighboring islands; the condor never leaves the Andes of South America; the great eagle remains among the ridges of the Alps; paroquets are chiefly inter-tropical; the albatross is seen skimming the surface of the ocean on approaching the 40th parallel; the common grouse, the yellow and pied wagtails, and the English starling are alone known in Great Britain. These are only a few examples of limited distribution. The most beautiful varieties of birds are found within the tropics; where also the number of species and individuals is greatest, except in the instance of two families, the swimmers and waders, which in both respects are the most numerous in higher latitudes. Birds are distributed into the six orders of rapaces or birds of prey, scansores or climbers, oscines or songsters, gallinaceæ or gallinaceous birds, from gallina a fowl, grallatores or waders, and natatores or swimmers.



OSTRICH.

299. Mammalia or mammals stand at the head of brute animal creation, and are distributed into eight great groups. They differ vastly in appearance and habits but correspond in the particular of suckling their young. The groups with some of their types are as follows:

a. Quadrumana or four-handed animals—monkeys, apes.

b. Carnivora or flesh-eaters—mole, glutton, civet, bear, hyena, cat—in which last tribe the sanguinary development is at its height in the lion and tiger, sea-otter, etc.

c. Marsupialia or pouched animals—opossum, kangaroo, wombat.

d. Rodentia or gnawers—beaver, porcupine, squirrel, jerboa.

e. Edentata or toothless animals—sloth, armadillo, ornithorynchus.

f. Pachydermata or thick-skinned animals—elephant, rhinoceros, hippopotamus, zebra, tapir.

g. Ruminantia or ruminant animals (chewing the cud)—camel, ox, goat, sheep, deer, antelope, giraffe.

h. Cetacea or whale tribes—whale, dolphin, narwhal, seal, porpoise.

300. The first group has no representatives in North America, Australia, or Oceanica, nor is it represented in Europe, except on the Rock of Gibraltar, whose inaccessible heights have long been occupied by a race of monkeys identical with the Barbary ape. The region of the four-handed mammals extends in the New World from Central America through the intervening districts to the pampas of the Argentine country; and in the Old World it includes the whole of Africa, exclusive of Egypt, the south of Asia, and the Indian Archipelago.

301. The monkey tribe contains 170 species, exhibiting wide differences in form, size, color, and habits. There is no species common to the two continents, and but very few are common to Africa and Asia. Peculiar genera have for the most part contracted geographical limits. In the Old World there are 72 species tailed and seven tailless. The baboons, the most numerous of the tailed families, are principally located in Africa; the gibbons or long-armed apes, a tailless genera, are exclusively Asiatic. The station of the interesting tailless family of orang-outang, "the man of the woods," is both African and Asiatic, but entirely local, and the individuals are rare. The red species appears in Borneo, Sumatra, and Malacca; the black on the Guinea coasts. In America there are 91 species, none tailless, and all more gentle, but having a more decided animal appearance than their congeners of the Eastern Continent. They are divided into two classes, the sapajous and the sagouins, according as they have or have not prehensible tails. Distinct from the apes, but belonging to the quadrumana, is the makis tribe. It occurs in Asia, but the type, the genus "lemur," is entirely confined to Madagascar and the opposite African coast. The lemurs, remarkable for bounding elasticity, boa-like tails, and inoffensiveness, live in troups upon the trees, and apparently supply the place of the monkeys, none of which have yet been observed within their special limits.

302. Carnivorous animals of one or other kind are spread over the whole globe, as their natural food exists in every accessible region; but there are certain limits to which whole races are confined, while the different genera and species are confined to narrower bounds. Two tribes of the "digitigrada"



ST. BERNARD DOGS.



WOLF.

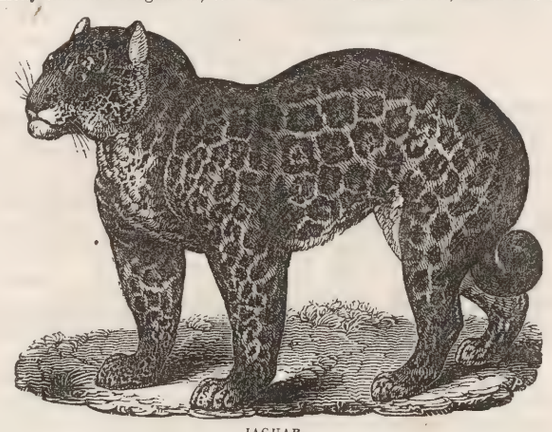
may be noticed—the dog (canis) and cat (felis) tribes. The dog, properly so called, domesticated by man, has attended him everywhere, his faithful companion and friend; but there are two remarkable instances of dogs in a wild state, the dhole of India and the dingo of Australia. The jackal, the characteristic dog of Africa, ranges through its entire north to India, and from Abyssinia to the Caspian Sea. The wolf is more widely distributed—in America from beyond the Arctic circles to near the Isthmus of Panama, and —in the Old World from the same northern limit to Egypt, Arabia, and India, and from Spain on the west to the eastern shores of the continent, not, however, occurring in India beyond the Ganges. But of all the members of the



JACKAL.

dog tribe, omitting the domesticated, the fox is the most extensively diffused, from the highest northern latitudes through great part of Europe, Asia, Africa, and America. The various species are provincial. The red fox, distinct from the European, inhabits the forest districts of North America; the black fox the Siberian woodlands, and the white fox the polar regions.

303. Europe has no representative of the feline tribe in a wild state except the cat and the lynx. The wild cat occurs in most of its woody countries, and is found also in northern Asia, India, and South Africa. It has no representative whatever in Australia and Oceanica. But the tropical regions of both continents are occupied by powerful animals of the class—lions, tigers, leopards, and lynxes, some of which extend far into the middle latitudes. The African lion is found through the whole of that vast peninsula, excluding the Lybian Desert, the Nile countries, and some adjacent districts; the Asiatic lion, specifically distinct, has much smaller domain, stretching from Persia into India; the American lion (puma), a widely different animal, ranges from Patagonia to the northern lakes. The tiger is exclusively Asiatic, occupying the southeastern countries, with the islands of Sumatra and Java, appearing westward in Persia and northward in the vicinity of Lake Baikal. The leopard and panther, two closely related animals, if not specifically the same, chiefly inhabit Senegambia, the oases of the Great Desert, India and its



JAGUAR.

islands. The jaguar, sometimes called the American panther, a distinct animal, is peculiar to the southern part of the continent, and is principally found in Brazil and Paraguay. Lynxes are common to both hemispheres, but the species are different.

304. Hyenas, martens, skunks, otters, and civets represent other tribes of the family of digitigrades or animals walking on the toes only. The striped hyena is found in nearly the whole of Africa and in the southern countries of Asia, extending to the chains of the Caucasus and Altai; the spotted hyena is entirely African. The marten tribe is represented in each grand division of the world; but the more important species, on account of their furs, the ermine and sable, have their province in the northern parts of the two continents. Otters haunt most of the rivers, lakes, and coasts of Europe and America; but two species of the sea-otter, the most valuable of the fur-bearing animals (lutra marina and lutra phocula), are peculiar to the extreme northeastern shores of Asia and the northwestern shores of America, and the intervening islands.

305. Of carnivora belonging to the family of "plantigrades" (animals supported in walking on the entire sole of the foot), the most important is the bear (ursus) tribe. The European brown bear, which still haunts the recesses of the Alps and Pyrenees, is distributed through the entire north from Norway to Kamtchatka, and appears in Japan. The American black bear inhabits all its densely wooded districts from Carolina to the Arctic Sea and from the Atlantic to the Pacific. The grizzly bear, the most formidable species, has a much smaller province, consisting of the Rocky Mountains and a portion of the eastward territory. The polar bear occupies the icy zone, sometimes extending its excursions southward to the shores of Hudson's Bay and Labrador, and appears also on the northern coasts of Asia and Europe. Abyssinia, Syria, Tibet, and Sumatra have each different species.



WHITE OR POLAR BEARS.

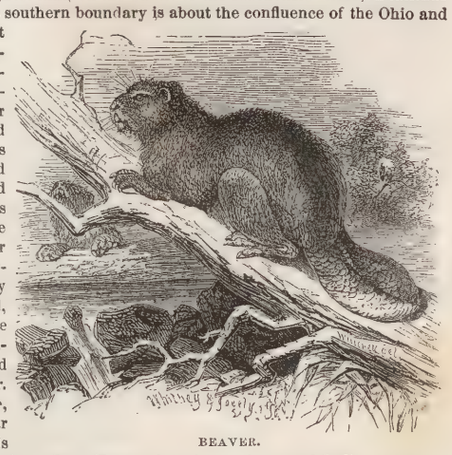
306. None of the marsupials (quadrupeds furnished with a pouch in which the females carry their young while very small and imperfectly formed) appear on the Eastern Continent. America has one family, the opossums, spread from the northern United States to the south of the Plata. But the group specially characterizes the fauna of Australia, the Moluccas, and New Guinea, constituting in that region one of the best defined zoological kingdoms on the surface of the globe. The "rodentia" or gnawers, named from the manner in which they file or gnaw their food with their front teeth, are very extensively diffused, the muridæ or rat tribe, which comprises more than half the species in the group, having the greatest geographical range. The "edentata" or toothless animals, characterized by the absence of front teeth peculiarly, belong to Central and South America, and only occasionally occur in the southern regions of the Old World.

307. Of marsupial, the typical animal, the kangaroo, is found in all the explored parts of the Australian Archipelago, and in one instance in Java.



KANGAROOS.

Among rodents the beaver is the most interesting, and ranges in the northern and temperate regions of the northern hemisphere. The North American beaver has its highest limit on the banks of the Mackenzie River, in latitude 68° north, and its southern boundary is about the confluence of the Ohio and Mississippi: east and west it extends from the Atlantic to the Pacific. The beaver of the Old World inhabits the rivers between 36° and 67°, and is found in the Obi and its tributaries. The little beaver or musk-rat of America is a generically distinct animal, but, along with the true beaver, is incessantly pursued by man for its fur. The porcupine, another peculiar rodent, extends from Spain through southern Europe into Afghanistan and India.



BEAVER.

308. Of edentata the sloth and armadillo are exclusiveiy American, the former inhabiting the dense forests from Mexico to Rio Janeiro, and the latter the open plains and pampas south of the Orinoco. The great ant-eater, the largest of all the toothless animals, is distributed from the pampas to the north of the Orinoco. Among the edentata of the Old World the pangolius or scaly ant-eaters are common to Africa and Asia. Australia has the porcupine ant-eater, so named from its covering of spines, and the ornithorynchus,

apparently restricted to the southeast, the most singularly formed of all mammals, having a compressed muzzle resembling the bill of a duck and webbed feet.

309. The "pachydermata" or thick-skinned group comprises the largest and most powerful of all land animals, with some of the most useful as domesticated by and for the use of man. It includes two species of elephants: the Asiatic, which ranges south from the foot of the Himalayas and into the Malay Archipelago, and the African, of smaller size, ranging from the northern boundaries of Cape Colony to Senegal and Abyssinia; seven species of the rhinoceros, four of which belong to Africa and three to Asia, but none of which are common to both regions—all having nearly the same range as the elephant but in Java the elephant is wanting, while the rhinoceros occurs; and three species of the hippopotamus or river-horse, confined to the rivers and lakes of Africa. The New World has no animal of



HIPPOPOTAMUS. ELEPHANT.

any kind comparable to the huge pachyderms of the Old. The tribe of tapirs is common to both, two species of which are located in South America and one in Sumatra, Borneo, and Malacca.

310. The remaining important tribes of the pachydermatous form are those of the horse and the hog. The Horse, properly so called, now diffused in a domestic state over the whole civilized world, can not be traced to its native country. At present it runs wild on the table-lands of central Asia, supposed by some to be the primeval home of the tribe; but more probably this is simply an instance in which the descendants of a domestic race have returned to the wild state. In the same way the animal introduced into America from Europe by the Spaniards now roams wild in immense herds over its vast plains. The ass, a member of the equine tribe, was perhaps domesticated at an earlier period than the horse. There are several species wild occurring in the countries between northeastern and southwestern Asia, as the koulau of the Tartars and the djiggetai of the Moguls. Though hardy in many respects, the ass does not support cold so well as the horse, and hence it is that the ass of the warm regions so surpasses his congeners on approach to the zone of cold. The quagga, belonging also to the equine family, and also the gnu and zebra, are peculiar to Africa, and are found



HORSE.



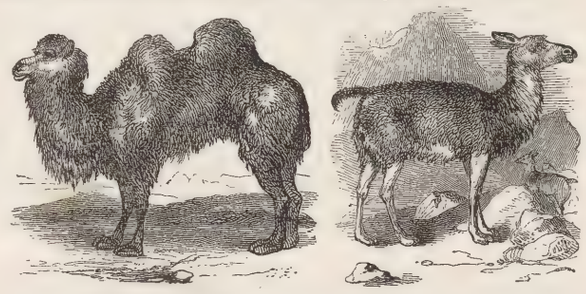
GNU OR HORNED HORSE.

from Abyssinia and Guinea southward to Cape Colony. The individuals of each associate in troops, but the two do not herd together.

311. There are no swine (sus) indigenous in America; but a cognate genus, the peccary, of two species, occur in South America; and since the introduction of the domestic hog it has run wild, and forms large herds in the Western World. Another cognate genus, the wart-hog, is peculiar to Africa. Of true swine there are several species distributed over the islands contiguous to southern Asia, and also found in the adjacent continental parts; but the best known species, the European wild boar, has the most extensive range. It occurs generally through the Old World, from France eastward to the Asian shores of the Pacific, but is not found in Spain, Italy, and Persia. Its farthest northern limit is in Asia, at about the 60th parallel.

312. The group of "ruminants," characterized in their internal structure by four stomachs for the purpose of chewing the cud, comprehends various tribes, remarkable for elegance of form and utility to man as articles of food and as beasts of burden in climates of the most extreme heat and cold, viz.: camels, llamas, giraffes, deer, antelopes, goats, sheep, and the ox.

313. The region of the camel (camelus) extends from the Canary Isles through northern Africa, Arabia, Syria, Asia Minor, Persia, northwestern India, the southern districts of Tartary to the frontiers of China. There are two species, the Bactrian camel, distinguished by two hunches or humps on the back, and the Arabian camel with only one, of which the dromedary is a fleet variety. The camel is alone found in a domesticated state. The Bactrian species has been said to run wild in the great Desert of Gobi.



BACTRIAN CAMEL. LLAMA.

314. Llamas (anchenia), of which there are three species, represent in the Western World the camels of the East, which they greatly resemble, but are smaller and without humps. They are entirely South American, and principally found on the west side of the Andes.

315. The giraffe (camelopardalis), so remarkable for their height, peculiar form, swan-like necks, timidity, and gentle manners, are exclusively African. There are at least two species, the north African giraffe, inhabiting Nubia, Abyssinia, and the countries around Lake Tchad, and the south African giraffe, which extends from the borders of Orange River probably into the central regions.

316. The deer family (cervus) includes all those ruminants which are furnished with solid horns or antlers. The family and species are numerous and of great importance. The elk or moose-deer, a gigantic animal, with broad, solid, and very heavy antlers, belongs to the northern regions of both



ELK OR MOOSE-DEER.

continents. The reindeer, however, is more capable of enduring cold than the elk, and hence occupies the highest latitudes. Its congener in America is the caribou, which occupies the whole country north of the latitude of Quebec. The other more prominent members of this family are the fallow-deer, the common stag or red deer, and the roebuck. The musk-deer, characterized by the absence of true antlers or horns, and a secretion of musk, belongs to western Africa and southern and central Asia, but of different species in each region. The genuine musk-deer is a denizen of central and southeastern Asia.

317. Africa, deficient as to the deer tribes, is peculiarly the land of the antelope, the most numerous in species of any race of ruminants, differing widely in size, color, habits, and station. A few court the shade of the forests; some inhabit the lofty table-lands; but the greater number roam over the plains in troops. The gazelle, long celebrated for its large, mild, and dark eyes, is found in Egypt, Barbary, and through all the country bordering on the Desert. Of two European antelopes, one is the chamois, so remarkable for its agility, dwelling on the highest ridges of the Pyrenees and Alps, the Carpathian and mountains of Greece, the Caucasus and the Taurus.

318. Goats (capra) are mountain dwellers. The ibex inhabits the highest ranges of Europe; the penang is found on the wildest points of the Caucasus



SHEEP.

and the inhospitable hills of Persia; the goat of Cashmere occupies the declivities of the Himalayas and the upland plains; the jaal goat belongs to the Sinaitic Mountains, those of upper Egypt and Abyssinia; and the Rocky Mountain goat is attached to the loftiest and least accessible summits of that range. The parent stock of the common domesticated goat is unknown.

319. Sheep (ovis) in their wild state, like goats, are chiefly denizens of mountain districts. The greatest number of species occurs in Asia. The argali, with enormous horns, is found throughout northern Asia, and the American argali, a Rocky Mountain sheep, inhabits the range and the ridges which intersect the country to the Pacific between the 40th and 68th parallels. The mouflou occupies the heights of Corsica, Sardinia, Crete, Cyprus, and other islands of the Greek Archipelago. It is quite uncertain from what race the domestic breeds are descended.

320. The bovine or ox (boo) family includes the largest and most powerful of all ruminants. The common ox, a native of the Old World, now living as



CATTLE.

far north as the 64th parallel, and in Lapland even under the 70th, appears to have sprung from the warmer parts of the temperate zone; and probably descends from the urus of the ancients, an extinct race, but described by Cæsar as inhabiting the great Hercynian Forest. The other most famous members of this family are—the Brahming bull (humped), a sacred animal in most parts of India; the gayal, an Asiatic species (differing from the ox, which has thirteen pairs of ribs, by having fourteen) inhabiting the lower members of the Himalaya range, and occurring both wild and domesticated; the yak, the mountaineer of central Asia, living amid the eternal snows on the table-land of Pamir, 15,000 feet above the sea; the buffalo of India, now domesticated in southern Europe and northern Africa, and that of southern Africa, a much more formidable animal. The bison is common to both continents, but differing in species. While the ox has thirteen pairs of ribs, the European bison has fourteen and the North American species fifteen pairs. Both species are remarkable for their daring energy. The European bison or auroch is a forest animal, while the American bison, or, as it is erroneously called, buffalo, is an animal of the open plains—the first is nearly extinct in Europe, but it is still found in the countries around the Black and Caspian seas; and the latter, though still numerous, is rapidly diminishing. The musk-ox, so called from the odor of its flesh, is peculiar to North America, and is only found above the 60th parallel.



BISON OR BUFFALO.

321. The "cetacea," animals of the whale kind, form the last group of mammals. Popularly considered as fishes, and resembling them in external appearance and habitat, they have the internal structure, vital functions, and mode of production of land quadrupeds. There are several families, chiefly occupying the seas of high latitudes, comprehending the whales, properly so called, with narwhals (sea-unicorns), porpoises, and grampuses.

322. In former ages whales were frequent in the Mediterranean and along the European coasts of the Atlantic. In the latter locality the modern whale fishery was commenced; but at present it is very rarely, and as an animal astray, that one of these huge monsters appears in such a low latitude. The common black whale, the chief object of the pursuit of man, has largely left these seas during the present century and gone farther north. The spermaceti whale or cachelot is a much more ranging animal than its congener, and is found in both the Atlantic and Pacific. The white whale occurs in all the polar seas. In the Antarctic Ocean, into which man has seldom intruded, whales of various kinds occur in great numbers, and to that quarter of the globe the attention of whaling adventurers is now strongly directed. The narwhal is located near the polar ice; the common porpoise is plentiful throughout the Atlantic and in the estuaries of its coasts on both sides; the grampus ranges through the northern ocean.



WHALE FISHING.

323. All the cetacea noticed above are carnivorous, but there are three genera which are exclusively herbivorous—the manatus or sea-cow, halicore, daughter of the sea or sea-lass, and stellerus, a name derived from Steller, the first person who observed and described the animal. The manatus occurs in some of the tropical rivers of western Africa, but ascends in far greater numbers those of South America, the Orinoco and Amazon, occurring also in shallow bays among the West India Islands. The halicore or dudong has

its head-quarters in the Asiatic Archipelago, and the steller in the North Pacific, where it occurs on both coasts.

324. Seals and walruses form a distinct family in Cuvier's group of carnivora, but are frequently classed with the cetaceous animals. The number of seal species is very considerable. They inhabit the frozen and higher parts of the temperate zone in both hemispheres, some species being local, but the common seal is widely distributed. The ursine seal or sea-bear is found exclusively in the North Pacific toward Behring's Strait, and the lion seal or sea-lion occurs on the northeast shores of Asia; while the walrus or morse, of which but one species is known, is more decidedly confined to the high latitudes.



SEA-LIONS.

325. It appears from the phenomena of animal distribution that the globe may be divided into the following great zoological kingdoms, each of which is characterized by the exclusive possession of certain forms:

a. The Arctic Region, comprehending the northern parts of America, Asia, and Europe, and the district from thence to the pole, to which the same animals are common, but strikingly different from those of other latitudes.

b. The North Temperate Region, in which the species are often identical in Europe and Asia, though more frequently differing, while they are all peculiar in America, which possesses also some distinct genera.

c. The Region of Inter-tropical Asia, with the Archipelago, characterized by huge pachyderms and an intense development of the feline tribe.

d. The Region of Inter-tropical and South Africa, to which entire genera of pachyderms and ruminants are confined, with a vast variety of species of the latter race.

e. The Region of Inter-tropical and South America, distinguished by the



TROPICAL FOREST.

prevalence of edentata, the occurrence of various genera of other tribes which are peculiar to it, and the absence of every species common to the Eastern World.

f. The Region of Australia, remarkable for the feeble development of mammalia, with one exception—that of the marsupials, to which almost all the land mammals belong.

326. The Antarctic Regions, as far as they have yet been explored, appear to have no land animals, contrary to what is the case in the opposite dark and outer boundary of the earth. The Arctic Zone is tenanted by white bears, reindeer, wolves, the polar hare and Arctic fox, some of which seek no southerly migration to avoid the long, rigorous winter. But no terrestrial quadrupeds have hitherto been observed on the south polar shores. The oceanic birds, albatrosses, penguins, and petrels, occur in great numbers, with seals reposing on the ice and whales spouting in all directions in the open water.

327. Inter-tropical and the adjoining countries strikingly contrast with other latitudes in being peculiarly the home of carnivora of the feline tribe—lions, tigers, leopards, panthers, lynxes, and jaguars, of which the comparatively small and feeble wild-cat is the only representative in the northern regions. The same remark applies to the viverrine or civet tribe, of which the genet is the only European example; and also to the hyenas, with their allied races. On the contrary the canine tribes—wolves and foxes, excepting the jackal, and the marten tribe—weasels, stoats, ferrets, pole-cats, and others, are most abundant in middle and high latitudes. But of all the land carnivora, comprising upward of five hundred species, the proportion of species in tropical and temperate regions is nearly as three to one.



AFRICAN LION.

328. Contrasting the carnivora of the Western and Eastern hemispheres, we find a much smaller proportion of those that are useful to man in the former than in the latter. The llama, vicuña, some sheep, and dogs comprise all the important contributions made by America to the domestic stock of animals, which are vastly inferior to the domesticated races it has received from the Old World. In point also of size, courage, and power the land animals in the New World are inferior to those of the Old World. Especially is this the case limiting the comparison to the southern parts of the two continents, South America and Africa.

329. The conclusion deducible from the facts of zoological geography is parallel to that drawn from the circumstances of vegetable distribution, namely: that certain tribes of the animal creation were originally placed in particular regions, and have since remained attached to them, or to some extent been dispersed according as their powers of locomotion, their capacity to endure change of climate, and the absence of physical obstacles to migration have enabled them to wander.

330. Insects of various kinds, some in vast numbers, are often encountered far out at sea, on a voluntary cruise, or blown off from the shore; and have no doubt frequently been compelled by the winds to establish themselves in new countries. The same agency has operated in the dispersion of birds. The oceanic currents minister to the same end: the white bear has repeatedly made the passage from Greenland to Iceland on the drifting ice; and wolves and foxes have been met with far away from the shore on great floating ice-fields. A deficiency of food in one district and its abundance in another has not been without its influence in altering the station of some animal tribes.

331. Man also has largely contributed voluntarily and involuntarily to extend the sphere of various races, diffusing the domestic tribes through the civilized world, and planting them on lonely islands as a source of supply to future visitors. Nor can the practice be too highly recommended of introducing the plants and animals that are serviceable to man on shores that are destitute of them but capable of sustaining them. It is an easy method of



MIGRATION OF MAN AND ANIMALS.

conferring a benefit of unknown importance. In this way countries far apart enjoy blessings denied by nature, and have conferred upon them the sources of a wealth and happiness to which they had been strangers.

332. But man on the other hand has immensely restricted or modified the natural sphere of many animals both of the useful and dangerous class. The Asiatic lion, now confined to the country beyond the Euphrates, once occupied Palestine, Syria, Asia Minor, Macedonia, and Thrace. The aurochs, of which only a remnant lingers in the Lithuanian forests, formerly roamed in numbers through the woods of Gaul and Germany. The bear, the beaver, and the wolf have had their habitat in Britain. The presence of civilized man in America has had a similar marked influence upon the natural boundaries of the brute creation. The bison once inhabited the Carolinas, and indeed existed through nearly the whole extent of the United States. But as the settler has pushed westward the animal has lost part of his old domain, and now is only found on the plains beyond the Mississippi. The limits of the fur-bearing animals have undergone a similar alteration, and it is obvious that these races must ultimately disappear before the persevering pursuit of the hunter.

MAN—ETHNOGRAPHY.

333. Man is properly separated from all other members of the animal kingdom, and regarded as forming an order by himself, comprising a single



TYPES OF MANKIND.

species, but exhibiting many varieties. The most inferior specimen of the human race is to be discriminated from any mere animal immensely greater than the change which species can be supposed to have undergone in the longest period of time and under the influence of the most varied circumstances. The diversities of mankind are quite compatible with the idea of their descent from a single stock, for they are precisely diversities of the same nature with those which we know arise from species under control of external causes.

334. Linnæus placed man in the order of "quadrumana" or four-handed animals; but the human hands and feet are totally different in structure and fitted for different uses. The hand of man is also so far superior to that of the



SCENE IN THE SAVAGE STATE.

quadrumanous tribes in its mechanism and adaptations as to render their classification together inappropriate. Accordingly Cuvier constitutes of man the single order of "bimana," for he alone is two-handed. The characteristics of the species are, according to Bleumenbach—"Erect, two-handed, unarmed, rational, endowed with speech; a prominent chin; four incisor teeth above and below; all the teeth equally approximated; the canine teeth of the same length as the others; the lower incisors erect.

335. Owing mainly to the flexibility of his constitution, although obtaining much artificial aid, man can exist under the greatest climatic extremes. The Esquimaux endure the cold between the parallels of 70° and 80°; African negroes, and other nations, Asiatic and American, subsist under the burning sun of the equator; while the inhabitants of temperate climates, accustomed to an intermediate temperature, have borne the rigors of the highest accessible latitude and the fiercest heat of the torrid zone. The human frame can also adapt itself to very different states of the atmosphere as to density, though with a varying capacity in different individuals.

336. Nor is man confined to the use of any particular kind of food; but



SCENE IN THE CIVILIZED STATE.

subsists in different situations with equal facility on very varied diet. Vegetables are the chief aliment of the nations within the tropics; animal food of the polar tribes; while both, in no great disproportion, contribute to support the inhabitants of temperate climates. Man is thus adapted to a very wide geographical range, and fitted to occupy physically discordant regions. In high latitudes, where a mantle of snow covers the ground through the greater portion of the year, and where vegetation is very scanty, entire hordes live on fish and seals; toward the equator, where vegetation flourishes most, vast numbers thrive with no other articles of subsistence than cocoa-nuts, bananas, yams, and rice. In the intermediate districts, the special region of the cereals, and where animal food can as readily be procured, a mixed diet obtains.

337. Few countries of the globe have been discovered without an indigenous human population. Among the principal are Spitzbergen, Nova Zembla, Iceland, Madeira, St. Helena, the Falkland Isles, Kerguelen's Land, the Antarctic Lands, and the African Sahara excepting its oases. Respecting the aggregate number of individuals, the estimates made are necessarily approximations merely, and are very discordant. From the best authorities the total number of the human race is from 1,000 to 1,200 millions, more or less; and distributed as follows:

North America	42,000,000	Europe	280,000,000	Malaysia	24,000,000
South America	20,000,000	Asia	680,000,000	Australasia	3,000,000
American Islands	4,000,000	Africa	80,000,000	Polynesia	2,000,000

—and in all civilized states, and probably as a general rule throughout the world, the numbers are constantly increasing, but at varying rates. On the contrary, it is a well-ascertained fact that modern civilization is fatal to the indigenous nations with which it comes in contact. Where are now the red men of America? But few, compared with their original numbers, exist, and their lands are occupied by the stranger.

338. The leading physical differences observable among mankind refer to varieties of strength, stature, proportion of the limbs, texture of the skin, character of the hair, color, and the form of the skull.

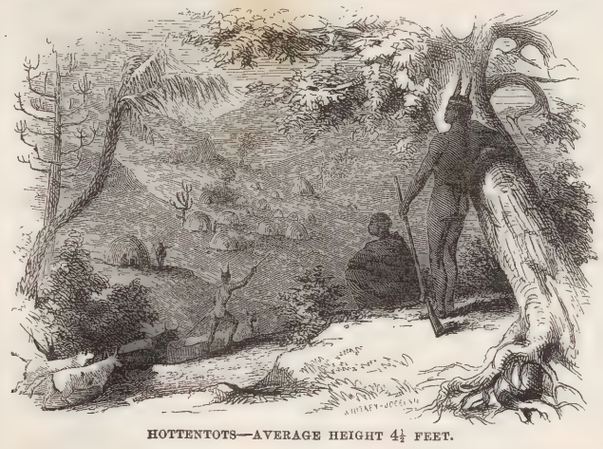
339. Both barbarous and civilized nations exhibit the diversities of physical power which are found in individual families; but contrary to popular opinion, upon comparing the two together, the result of experiment shows the savage to be inferior to the civilized man in muscular energy and capacity of endurance, though some of his bodily powers and senses, as the eye and ear, are remarkably vigorous. During a voyage to Australia, M. Peron obtained

with the dynamometer, an instrument contrived to exhibit the measure of strength in the arms and loins of the parties subjected to trial, results thus:

	Arms.		Loins.	
17 natives of Australia	50.8	kilogr's.	10.2	kilogr's.
12 natives of Van Dieman Land	50.6	"	—	"
56 natives of the island of Timor	58.7	"	11.6	"
17 Frenchmen attached to the expedition	69.2	"	15.2	"
14 Englishmen of New South Wales	71.4	"	16.3	"

—and it may here be remarked that the first transportation of negroes to the New World arose from the Spaniards finding the aborigines so much weaker than themselves as to be quite unable to endure the labor of the mines.

340. While members of the same nation and family exhibit considerable divergencies from the average height, there are examples of tribes departing generally from the ordinary standard as to stature. Among the natives of the New World the Esquimaux, Nootka Sound dwellers, Fuegans, and Peruvians are diminutive; the Cherokees, Caribs, and Patagonians are tall. In the Old World the Lapps and Samoiedes are below the standard height of Europeans, and the Hottentots and Bosjesmen are far inferior to the stature



HOTTENTOTS—AVERAGE HEIGHT 4½ FEET.

of the Kaffirs. Among the tallest men not more than one in 10,000,000 attain 6 feet 8 inches, nor is one in the same number of less stature than 3 feet 11 inches. The average height of Englishmen is 5 feet 7½ inches, and of Frenchmen 5 feet 3 inches. Among the Bosjesmen 4½ feet is given as the average height of the men and 4 feet of the women. The Patagonians average 6 feet, and very frequently exceed it. Compare the Shetland pony with the tall-backed horse of Flanders, and the Bantam fowl with the gigantic Shanghae.

341. Diversities occur with reference to the proportional size of parts of the bony skeleton, the texture of the skin and hair. Thus examples are common in the negro tribes of the broad, flat foot, projecting heel, "cucumber shin," and of the greater length of the forearm measured in proportion to the upper arm and the height of the body. The skin is also softer and more velvety, a characteristic of some of the South Sea Islanders. The hair has likewise that peculiar character which has led to the African nations being styled in general "woolly-haired," fine, wiry, and crisp, while that of the Mongolian tribes is strong, straight, and scanty, and that of Europeans soft, long, and flowing. But these characters are only variations which may be observed within the limits of any single race.

342. Complexional differences, however, form the most obvious of those distinctions which exist among mankind, and have been most relied on as evidencing a descent from different original stocks. Omitting exceptional cases, there is a correspondence maintained between the coloring of the skin, eyes, and hair, which renders their mutual dependence upon some pigmentary matter highly probable. Light hair is very generally in alliance with light blue or gray eyes; but the hues of the hair and of the skin have an analogy which is almost invariable, the fair and transparent skin, which frequently assumes a ruddy tint, being connected with light hair, and the dark-complexioned skin with black hair. Dr. Pritchard discriminates three principal varieties of the human species, according to the color of the hair—the "melanic" or black-haired variety; the "xanthous" or yellow-haired, and the "leucons" or white variety, as instanced in albinos.



NATIVES OF PATAGONIA—AVERAGE HEIGHT 6 FEET.

343. But various considerations decisively show that the distinctions of color exhibited by the human race are perfectly independent of diversity of origin as the cause, and have sprung up in the species under the influence of purely local circumstances. The color is not a permanent character. Thus we find the xanthous variety making its appearance in melanic tribes, and this occurs among the most swarthy, as the negroes of Senegal; and the Jews furnish a remarkable instance, those long settled in Malabar and Cochin China being so black as not to be distinguishable by complexion from the native inhabitants, and the ordinary Jewish complexion in Poland and Germany is florid, with blue eyes and red hair. Among the Hindoos, also, whose territory greatly differs from the secondary ranges of the Himalayas to the low, level plains of Bengal, the discrepancies of color are very great—some being actually fair, others little darker than the people of southern Europe, and others as black as negroes.

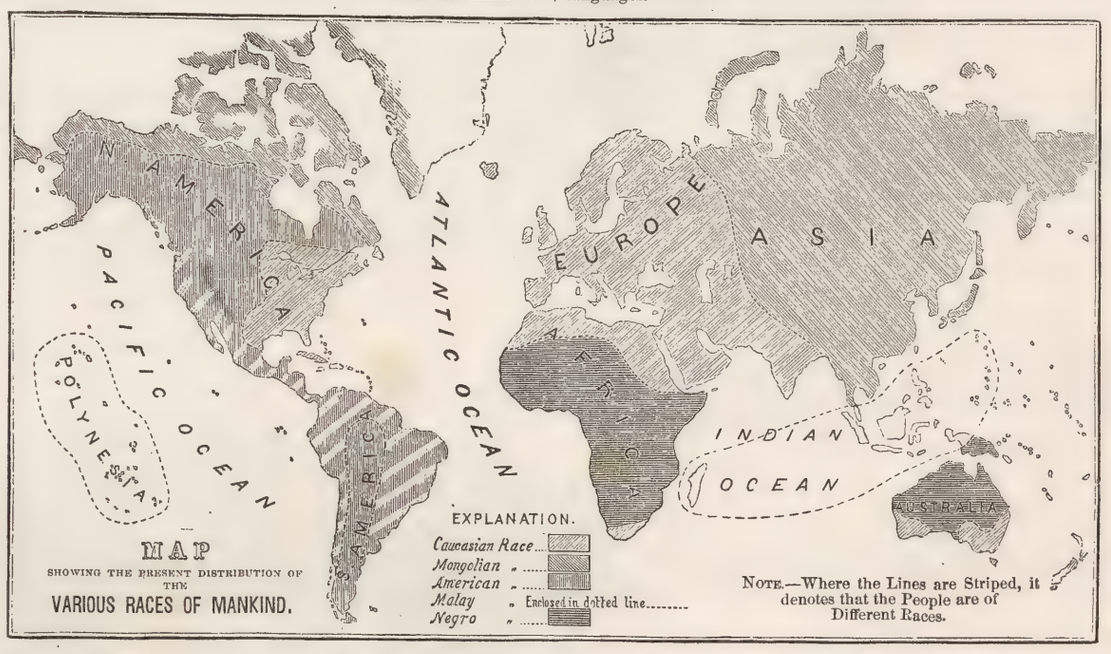
344. Anatomical investigation, indeed, proves the true skin to be similar in all nations. The pigmentary substance upon which varieties of color depend is apart from it, seated in the cells of the epidermis or scarf skin; and our own experience shows that this coloring matter may be temporarily generated so as to tinge in a marked manner the fairest complexion under temporary exposure to the more direct and heating rays of the sun. Hence the "freckle," which appears in summer, and the change which we describe as becoming "tanned" or sun-burned, manifest on those parts of the body exposed to more intense solar influence, as the face and hands; while the general frame, being covered, retains its fairness. And the argument against the unity of mankind, founded upon differences of color, is completely exploded by the consideration that varieties of hue quite as strongly marked occur in brute animals of the same species.

345. The last important physical diversity apparent among mankind refers to the form of the skull, which very remarkably varies, presenting several well-defined shapes, distinctive of great groups of the human population. Bleumenbach founded his celebrated classification of mankind chiefly upon the diverse conformation of the cranium. The division is in five varieties—the Caucasian, Mongolian, Malay, Ethiopian, and American. But this classification, though still often retained, has been rendered largely inapplicable by the advance of ethnographical knowledge. The varieties of cranial conformation have been reduced by Dr. Pritchard to three leading types, viz.—the oval or elliptical, the narrow or elongated, and the broad or pyramidal.. The oval or elliptical form, termed also symmetrical, is that in which the forehead is full and elevated and the face small and distinguished by the regularity and evenness of the features. The narrow or elongated form, suggesting the idea of compression at the two sides, called prognathous, has its distinctive character in that forward prominence of the jaws which gives a peculiarly ferocious and animal character to the countenance. The broad or pyramidal form derives its peculiar character from the great lateral prominence of the cheek-bones and the rapid narrowing of the forehead at its highest part.

346. But while there are certain great groups of nations exhibiting differences of cranial formation, each variety appears with widely different degrees of development in its respective group; and entire tribes and families supply evidence of craniological change, which harmonizes the unity of the species with the fact of its diversity. It is probable that the numerous distinctions between civilization and barbarism, with great climatic contrasts, originate mainly the structural differences in the human race. Near a thousand years ago, the Maygars, a race of northern Asiatics, were expelled from their native region, and exchanged a rigorous for a more genial climate by planting themselves in Hungary, abandoning at the same time their nomadic habits for a settled mode of life; and in the interval of ten centuries their cranial conformation has undergone a change from the pyramidal to the elliptical, and they are not now recognizable from regular Europeans. A similar alteration has been observed in the case of many negroes associated with the whites in the West Indies and America, without their having been any intermixture of race. It is also so of the lower animals: descendants from a common stock, the domesticated breeds are easily distinguishable from their congeners running wild.

347. While the physical differences of mankind are not only consistent with the anatomical phenomena exhibited by known species, their unity is strongly confirmed by a common conformity to the same physiological laws. There is a wide distinction between man and the animals that make the nearest approach to him, in point of longevity, the extreme term of the orang-outang being estimated at not more than 30 years; but the capacity for long life is not greater in one tribe of the human race than in another, nor is there any difference as to its average duration under equal circumstances as to climate, food, clothing, habitation, and the sanitary aids which civilization furnishes. That the average duration of life should be much inferior among the barbarous races, as compared with the civilized, is adequately explained by a precarious mode of life, physical hardships, ignorance of remedies in sickness, and of the habits favorable or adverse to vitality.

348. The same general coincidence prevails with reference to other physiological characteristics, as the age of puberty, the period of gestation, the signs of advancing life, and the diseases to which the human frame is subject, the greater part of which are common to all communities modified by differing climates and local position.



MAP
SHOWING THE PRESENT DISTRIBUTION OF THE
VARIOUS RACES OF MANKIND.

NOTE.—Where the Lines are Striped, it denotes that the People are of Different Races.

349. As far as the psychical properties of the different nations of mankind have been examined, or those intellectual and moral capabilities in which humanity properly consists, the differences are not greater between the races of men than those which appear within the limits of the same race. Examples are not wanting within our own shores of individuals apparently shorn of the high prerogatives of their kind, sunk in stolid ignorance and abandoned to brutal habits, having grown up apart from the means of cultivation; and the case of entire tribes, as the Bushmen of South Africa and the Fuegans



NATIVES OF TIERRA DEL FUEGO.

of South America, is but a parallel one, deriving its more melancholy features from a more complete destitution of improving influences. This may be inferred from the recovery from extreme barbarism exemplified by tribes whose nature has been fairly tested by intellectual, moral, and religious education.

350. The result of modern philological inquiry has been to reduce the languages of the great bulk of mankind, the inhabitants of the Old World to a few great groups, and traces of community are observed in these groups which indicate a derivation from a common stock. In referring different languages to a common family, however, their grammatical affinity and not their lexicographical agreement is the criterion. Keeping in view this distinction, the languages of the Old World have been classed by Chev. Bunsen into the following families:

a. The Indo-European, called also the Japetic and likewise the Iranian, comprising the Sanscrit, Medo-Persic, Teutonic, Græco-Latin, Sclavonic, and Celtic branches, with their derivative dialects.

b. The Syro-Arabic, styled also the Semetic, comprising the Aramæan or Syriac, Hebrew, Arabic, and Ethiopic, with their derivative dialects.

c. The Turanian, called also Ugro-Tartarian, including the languages of northern Asia, of some of the inhabitants of northern Europe, the Lapps and Finns, and probably of the Basques in Spain.

d. The Chinese and Indo-Chinese, or the monosyllabic and uninflected languages.

e. The African languages spoken by the woolly-haired nations within a few degrees north of the equator and all south of that line.

351. The Japetic and Semetic groups are considered as one in essential character. The Semetic tongues, which belong to nations who have remained stationary in semi-civilization, stop short with a tendency toward that system of inflections characteristic of a progressive people, which the Japetic generally develops, and most highly in its Hellenic branch. The Turanian family of languages spoken by most of the nations of Asia exhibits vestiges of original connection with the Japetic; the Malayo-Polynesian languages are, through the Malayan, connected with the Turanian group, and the further prosecution of Chinese philology will probably bring to light indications of relationship to the same stock. It is, however, a striking fact that when the philological discordance among nations is at its maximum, the anatomical difference is at its minimum, and *vice versa*. Thus, while the

distinction between the Chinese and the other languages of central and northern Asia is very marked, their physical conformity to those nations is just as decided. All information, at present scanty, respecting the languages of central and southern Africa, tends to prove that they have sprung from a single stem referable to the common stock of the preceding branches.

352. The languages of the aborigines of the New World are very numerous, and exhibit the very singular phenomenon of great lexicographical discordance, amounting in some instances to having not so much as a single word in common; yet from Cape Horn to the Arctic Ocean they are all connected by the same principle of formation and grammatical structure, analogous to that of the Turanian tongues of Asia.

353. According to Adelung there are 3,664 known languages and dialects in the world. Of these 587 are European, 937 Asiatic, 276 African, 1,624 American, and 240 Oceanic.

354. Modern experience teaches us that the speech of a nation maintaining its geographical site and political status, changes remarkably in a short space of time from purely domestic causes. New words are required in the progress of society, and old ones become obsolete. The English of Chaucer and Wickliffe is unintelligible to the general reader; that of Spenser is scarcely less obscure; and a glossary is a common appendage to the works of Shakspeare.

355. But this modification of the vocabulary forms no case parallel to the phenomenon presented by different languages. Yet as, notwithstanding their variations, the English, German, Dutch, Danish, and Icelandic are branches from the Teutonic stem; as we certainly know, with greater divergencies, that the Teutonic, Celtic, Sclavonic, Græco-Latin, Zend, and Sanscrit constitute a single family (the Indo-European), having been developed from a common original at a remote era; there is no difficulty in conceiving of the great linguistic families, with still wider divergencies (the Indo-European, Semetic, Turanian, etc.), having originated from a common source at a still remoter period; and in the more primitive ages of the world, when mankind, few in numbers, dispersed themselves in detached bodies, losing all traces of each other, making varied progress, and encountering different experiences, it is easy to understand that the diversifying process with reference to language would be proportionably active.

356. It may be concluded, therefore, with rigorous certainty, that no specific difference exists among mankind, but an immense number of varieties. It is impossible to account for their occurrence otherwise than in a very superficial manner. The causes will probably ever remain enveloped in mystery, along with those of similar variations in single families and analogous phenomena in the animal kingdom. Owing to varieties existing with very unequal degrees of development, one passing gradually into another, no accurate classification of the species can be made according to characteristic differences; an approximation to such an arrangement is all that can be done. The following is the most approved:

1. Iranian or Caucasian.
2. Turanian or Mongolian and Malay.
3. Americans.
4. African Negro.
5. Hottentot Negro.
6. Oceanic Negro.

357. The Iranian nations correspond to the Caucasian of Bleumenbach, and the west Asiatic of others. The name is derived from Iran, the ancient and proper appellation of the great plateau of modern Persia, included between the rivers Tigris and Oxus. The class comprises nearly all the Asiatics within a line extending generally from the mouth of the Ganges, along the Himalaya Mountains, the course of the Oxus, intersecting the Caspian Sea, and following the chain of the Caucasus to the Euxine; also all the north Africans above the 20th parallel; almost all the inhabitants of Europe; and of course the European colonists settled in various parts of the globe. This vast section of the human family comprehends at present, and has ever done since the date of authentic history, the most perfectly formed, vigorous, and intellectual of mankind. The Egyptians, Hindoos, Assyrians, Babylonians, Medo-Persians, Greeks, Romans, and Arabs successively represented the civilization of by-gone times, founded mighty monarchies, and obtained paramount influence in the world—a heritage which has descended to the western Europeans and the offshoots from them in America and other parts of the world.



358. Owing to India and the Atlantic Ocean being geographical boundaries of the Iranic nations, they are frequently styled Indo-Atlantic. Their bond of union is a common physical conformation, which may be generally stated as follows: large cranium, beautifully shaped small head, oval face, expanded forehead, small mouth, regular features, and symmetrical shape; hair fine and copious; color not characteristic, since the complexion is of all shades—fair and florid, olive, swarthy, and jet black. This configuration appears most perfectly developed in the Greeks, ancient Persians, and some others; least so in the ancient Celts.

359. The Turanian nations correspond to Bleumenbach's Mongolian and Malay races. The denomination is derived from Turan, the Persian name applied to the wide and extensive plains of Tartary, and all the countries of Asia beyond the Oxus, as distinguished from the table-land of Iran. But nations apart from these geographical limits are included in this division. The principal are as follows: in Asia, the Tungusian, Mongolian, Turkish, Tibetan, Chinese and Indo-Chinese races, with the hyperborean tribes spread along the inclement shores of the Arctic Ocean, as the Samoiedes, Tschuktschi, Kamtchatkans, and Aleutian islanders, chiefly ichthyophagi or fish-eaters; in Oceanica, the Malayo-Polynesians, scattered through the various groups of the Pacific, exhibiting wide diversities, but supposed to have sprung from an Indo-Chinese germ; in Europe, the Turks, Magyars, and Tschudic races, the latter extending from Lapland and the White Sea along the Ural Mountains to the borders of the Caspian; and—in America, the Esquimaux and other related tribes closely resembling the hyperboreans of the Old World.





360. These nations are characterized generally by the pyramidal form of the skull, a peculiarity derived from the great lateral prominence of the cheek-bones and the rapid narrowing of the forehead at its highest part. The face is larger in proportion to the size of the skull than in the European, and round instead of oval. The eyes are small, deep, and obliquely set; hair scanty; complexion, a sallow or yellow olive; stature, commonly below the European standard. But many tribes depart widely from one or more of these characters, while conformable to the rest. The Samoiedes, Tungusians, and other northern Asiatics have a dirty brown or swarthy color; the Mantchoo Tartars in China, and some of the Chinese themselves, approximate to a fair and even florid complexion; and various tribes have the hair and beard long and bushy.

361. In Europe, the Turks, a settled race, have become widely different from the nomadic Turkish clans of central Asia, corresponding to the physical character of the great bulk of the Europeans. The same correspondence is also observable among the Magyars of the higher class, while the mass of the people retain the conformation of their ancestors with some modification. The Lapps, Finns, and other Tschudic races of northeastern Europe exhibit very decidedly the characters of the Turanian division of mankind.

362. The negro nations occupy Africa from the parallel of 20° north to the borders of Cape Colony, and have been largely planted in the West Indies, the United States, the Spanish Main, and Brazil by forcible transportation. The peculiar physiognomy of the negro—skull compressed laterally, and forward prominence of the jaws; low, narrow, and slanting forehead; large eyes, thick lips, and prominent cheek-bones; woolly or crisp hair; black complexion—is most apparent in the natives of the coast of Guinea. Many tribes diverge remarkably in conformation and color. High foreheads, light brown complexion, and reddish hair are frequently met with among the Kaffirs, though there is no reason to doubt their connection with the proper negro races.



363. The Hottentots and Bushmen, the latter a degraded caste of the former, inhabit the high table-land of southern Africa and the basin of Orange River. Though usually classed with the negroes, they are very discordant from their type, having the skull decidedly pyramidal, with obliquely-set eyes, yellowish complexion, spare hair, and other characters strikingly accordant with those of the central and northern Asiatics.

364. The Oceanic negroes, resembling the African in various features, and the Alfourous, are islanders of the Indian and Pacific oceans, forming tribes either associated with the Malayo-Polynesians or entirely separate. They comprise—1st, the negroes of the Indian seas—races of puny stature, woolly hair, black or nearly so, with features strongly akin to those of the Guinea coast natives—found in the Andaman Isles and the Philippines; 2d, the Papuans inhabiting New Guinea, the islands and archipelagoes around Australia, of puny stature and sooty hue, distinguished by their bushy, frizzled hair, growing on the head in separate tufts, described on that account by Dampier as the "mop-headed Papuans;" and, 3d, the Alfourous or Araforas, found in New Guinea, with whom are classed all the natives of Australia, very dark tinged, like the Oceanic negroes, and constituting a variety distinct from them and the Malayo-Polynesians by decided physical differences.

365. The American nations, excluding the Esquimaux and the descendants of European and African colonists, are intimately related to each other, so as to form a single family—the last of the great divisions of mankind, divergent in various respects from the groups of the Old World. Though commonly styled the red or copper-colored race, the cinnamon hue is not universal, some tribes being nearly black, others brown or yellow, and others comparatively fair.



366. The specific identity of mankind by no means solves the problem of their origin—whether they have all sprung from a single pair, or whether duplicates, triplicates, or other multiples of pairs were brought into being in different regions, formed so much alike that there should be no specific difference among them. Some eminent writers conceive that the latter alternative may be held, the first two inhabitants of Eden being regarded as the progenitors only of the race whence sprung the Hebrew family, in harmony with the announcement of the Scriptures. But the theory appears to be antecedently improbable, and it is quite unnecessary to explain the phenomena of the dispersion of the species. Mankind have not, like plants and animals, a constitution adapted simply to particular geographical localities, and there is no great difficulty connected with the idea of their diffusion from the location of a single pair. The New World might readily receive inhabitants from the Old across the narrow strait which separates them; and likewise by the chain of the Japan, Kurile, and Aleutian archipelagoes, a series of stepping-stones extending from China to the northwest coast of America. Canoes, diverted by winds and currents from their course, have borne their occupants into perpetual exile, and contributed to stock remote islets of the ocean with a human population.



TIGER-HUNTING IN INDIA.

NORTH AMERICA

PHYSICAL

The mean temperature of July the hottest month and January the coldest, is shown by Isothermal lines crossing the map thus July 70 ..... January 40 ---- the Figures showing the temperature of Fahrenheit.

The direction of Ocean Currents is shown by Arrows, and the figures attached show the velocity of water for each period of 24 hours in nautical miles.

The names of the chief productions of each country are inserted thus Cotton, Rice &c. The localities where minerals are found, are marked thus Lead, Copper, Gold, &c.

Mountain Chains are represented thus — the broader the line, the greater the elevation. The highest points are marked with circles Volcanoes are distinguished by a black dot in the centre of the circle, elevation given in feet. Table lands and Plateaus are colored Brown. Plains, Valleys and Lowlands, colored Green.

SCALE OF STATUTE MILES, 69.16 to 1°

0 50 100 300 500 700

400 Geographical or 461.06 Statute Miles to one inch.

PROFILE OF NORTH AMERICA ON LAT. 44° N.

PROFILE OF NORTH AMERICA ON THE LINE OF 40° N. LAT. FROM THE ATLANTIC TO THE PACIFIC

PROFILE OF NORTH AMERICA ON LAT. 18° N.

Entered according to Act of Congress in the Year 1856, by J. Hutton & Co. in the Clerks Office of the District Court of the United States for the Southern District of New York

NORTH AMERICA

1 / 28,990,200 of Nature

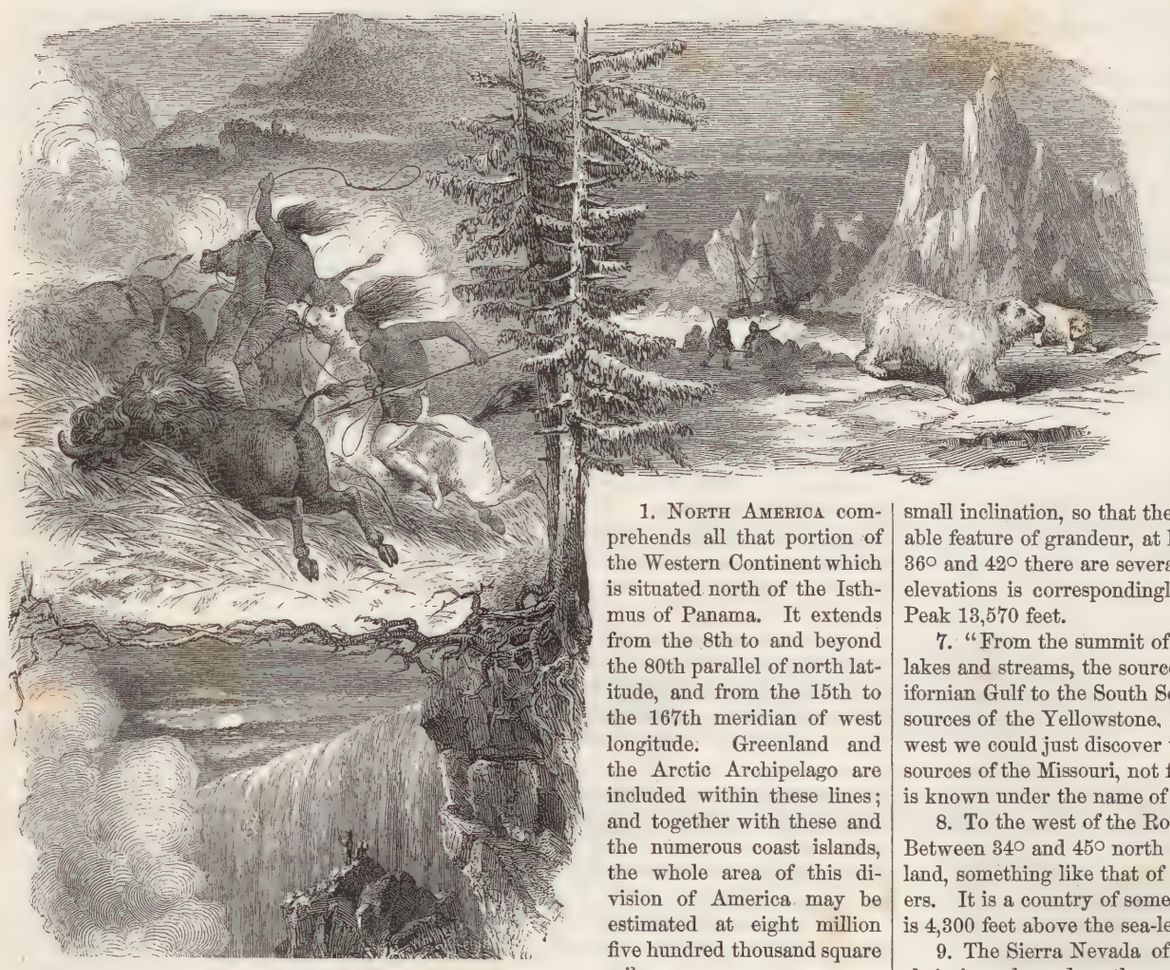
SCALE OF STATUTE MILES, 69.16 to 1°

0 50 100 300 500 700

400 Geographical or 461.06 Statute Miles, to one inch.

Entered according to Act of Congress, in the Year 1858 by J. H. Colton & Co. in the Clerk's Office of the District Court of the United States for the Southern District of New York.

DESCRIPTIVE GEOGRAPHY OF NORTH AMERICA.



1. North America comprehends all that portion of the Western Continent which is situated north of the Isthmus of Panama. It extends from the 8th to and beyond the 80th parallel of north latitude, and from the 15th to the 167th meridian of west longitude. Greenland and the Arctic Archipelago are included within these lines; and together with these and the numerous coast islands, the whole area of this division of America may be estimated at eight million five hundred thousand square miles.

2. But the mainland does not extend northward of the 71st parallel, and its eastern limit is in about 55° west longitude. It is bounded on the north by the Arctic Sea; on the northeast by Baffin's Bay and Davis' Strait, which separate it from Greenland; on the east by the Atlantic Ocean; on the south by the Gulf of Mexico and South America, and on the west by the Pacific Ocean. The extreme northwest of the continent approaches Asia, and is only separated from it by Behring's Strait, which has a minimum width of less than 40 miles.

3. The external line of North America is more irregular than that of South America, and the eastern coasts far more indented with gulfs, bays, and inlets than the western. These irregularities add vastly to its coastage. The Atlantic coast, from Hudson's Strait to the Florida Channel, has an extension of about 4,800 miles; the Gulf coast measures about 4,500 miles, and the Pacific coast about 10,500 miles. The Arctic coast has not been sufficiently examined to determine even its approximate extent, but may be stated to have a length of at least 3,000 miles. Thus, without considering its minor sinuosities, the coast-line of this division of the New World can not be less than 23,000 miles.

4. The Andes of South America terminate or are greatly depressed within the Isthmus of Panama; but another chain, perhaps a continuation, immediately rises, and continues its course between the Caribbean Sea and the Pacific, spreading out in Mexico into extensive table-lands, crowned by elevated volcanic peaks, and continuing in its main line a general north-northwest course, at a much greater distance from the ocean than the Andes of South America. The part of this range within the United States is known by the name of the Rocky Mountains, and in the northwest is sometimes called the Chippewayan Range. The termination of this range is at the Arctic Sea, on the west side of the Mackenzie River; but above 50° north the elevation is inconsiderable. Its whole length is not less than 8,700 miles.

5. The chain which extends from the table-land of Mexico does not run north in a line so regular as the Andes, and in about 22° north it divides into several branches. The most easterly branch, nowhere of great height, is in its northern course broken through by the Rio Grande del Norte, and then takes a northeastern direction, forming the northern part of Texas. In this part of its course it acts as the watershed between the rivers that enter the Gulf of Mexico and the minor affluents of the Red River, a tributary of the Mississippi. This is the range of hills that crosses the Arkansas and appears in Missouri under the name of the Ozark Mountains, running toward the confluence of the Missouri and the Mississippi, and probably continued beyond at a slight elevation toward Lake Superior. The general direction of the Ozarks is parallel to that of the Alleghanies.

6. The main mass, called the Sierra Madre, running north from the plateau of Guanaxuato to the high table-lands of New Mexico, spreads out to a great extent east and west, and contains several parallel chains of mountains, forming longitudinal valleys, like that in which the Del Norte runs. This mountain system in its farther course separates the basin of the Missouri from the waters flowing to the Pacific. From the level of the Mississippi River westward the country rises in irregular terraces and in plains of small inclination, so that the main mass of the Rocky Mountains does not present any remarkable feature of grandeur, at least none corresponding to their actual elevation. But between 36° and 42° there are several points always covered with snow, and the temperature of these elevations is correspondingly depressed. Long's Peak is 12,500 feet high, and Frémont's Peak 13,570 feet.

7. "From the summit of the latter," says Frémont, "we saw on the one side numerous lakes and streams, the sources of the Rio Colorado, which carries its waters through the Californian Gulf to the South Sea; on the other the deep valley of the Wind River, where lie the sources of the Yellowstone, one of the main branches of the Missouri, and far to the northwest we could just discover the snowy heads of the Trois Tétons, which give rise to the true sources of the Missouri, not far from the primitive stream of the Oregon or Columbia, which is known under the name of the Snake or Lewis' River."

8. To the west of the Rocky Mountains there are other chains running parallel with them. Between 34° and 45° north these chains are connected with each other by a remarkable tableland, something like that of the Lake of Titicaca, and named the Great Basin by the explorers. It is a country of some 130,000 square miles, and full of salt lakes, the largest of which is 4,300 feet above the sea-level. None of its rivers find a passage to the sea.

9. The Sierra Nevada of California is wholly distinct from the Rocky Mountains. This chain is prolonged northward beyond the Columbia River, and as far as 47° north, and in its northern section contains the three lofty summits named Jefferson, Hood, and St. Helen, which rise upward of 15,000 feet above the sea. The general height of the Nevada Range far exceeds that of the Rocky Mountains. To this chain belongs, in Russian America, north of 60°, Mount St. Elias, rising to the height of 17,850 feet, and forming the culminating point of North America.

10. The Sierra Nevada of California is parallel to the coast of the Pacific; but between the latitudes 34° and 41°, or between San Buenaventura and the Bay of Trinidad, there runs west of the Sierra a small coast range, the culmination of which is in the Monte del Diablo, 3,674 feet high. In the narrow valley between this coast chain and the Sierra Nevada flow from opposite directions the Sacramento and San Joaquin rivers.

11. The mountain system of the eastern side of the continent, called the Alleghany or Apalachian, stretches from about latitude 34° northward to the banks of the St. Lawrence. As far north as the Hudson its direction is pretty nearly from southwest to northeast. In its southern parts, in Alabama and Tennessee, it is at its greatest distance from the Atlantic, but continually approaches nearer as it runs north, till it is cut through by the Hudson River, where it is also reached by tide-water. Here it takes a turn more to the north, through Vermont and New Hampshire, in which latter State it acquires an elevation, in Mt. Washington, of 6,428 feet. The culminating point of the whole system, however, occurs in North Carolina—Clingman's Peak attaining the height of 6,941 feet.

12. But to form a correct view of the character of this vast continent we must consider the chain of the Rocky Mountains as its chief axis. East of this range lies the great central valley of the Mississippi; its eastern boundary is the Alleghany Mountain system, its southern is the Gulf of Mexico, and its limit northward is the level of the great lakes. From the Rocky Mountains to the Mississippi there is a slope which, as to its length, bears a similar proportion to their heights that the shorter slope from the Alleghany system to the Mississippi bears to

the height of its mountains. The slope from the Alleghanies to the Atlantic is, according to the same law, shorter than that from the Rocky Mountains to the Pacific. And correspondingly the rivers that enter the Atlantic, though in themselves of great importance, are inconsiderable when compared with the great rivers of the Pacific slope and those of the Mississippi valley.

13. When America was discovered, one continuous forest spread from east to west—from the shores of the Atlantic over the Alleghanies, and descended into the great central valley; and from the Gulf of St. Lawrence and the region of the great lakes this uninterrupted mass of vegetation reached to the shores of the Gulf of Mexico. On the highlands, as we advance westward from the Mississippi, are extensive plains or steppes, devoid of trees, parched in summer, and in winter swept by cold northern winds. The spacious and dry plains of Texas and the upper regions of the Arkansas present a character analogous to the high plateaux of the Asiatic continent; and beyond the Ozarks, and stretching along the base of the Rocky Mountains, with an average width of 600 or 700 miles, we find a country which is emphatically called the Desert. The lower portions of the Mississippi valley, with a portion toward the north, are still covered with dense forests. The prairies are found both on the east and the west side of the great river. These are extensive, elevated, and generally irregular tracts, without trees, though sometimes capable of producing them, covered in the spring with gaudy flowers and long, coarse grass, and often forming a deep rich soil. Sometimes on the west side of the Mississippi they exhibit on their surface a salt efflorescence; and incrustations of pure salt covering the ground like ice are seen in the upper valley of the Canadian River, one of the principal tributaries of the Arkansas.

14. The basin of the Mississippi has no mountain barrier on the north. A line of gentle undulations occurs in connected rows between 47° and 48° north, and forms the watershed between Hudson's Bay and the Gulf of Mexico. The highest of these slight elevations attain a height of only 1,500 and 1,700 feet. From the western extremity of Lake Superior, one of the tributaries of which interlocks its sources with a branch of the Mississippi, we have the series of enormous fresh-water lakes—Superior, Huron, Michigan, Erie, and Ontario—collectively covering a surface of little less than 80,000 square miles. These lakes have the outer margins of the basins in which they lie at no very great distance from their shores, as may be inferred from the inconsiderable courses of the streams which they receive.

15. Lake Superior is the highest of these inland seas, being 641 feet above the level of the Atlantic; Huron and Michigan form a separate and somewhat lower basin; Erie a third; and 333 feet below Erie lies Ontario, doubtless once at a much higher level than it now is. The great Falls of Niagara, in the narrow channel that connects Erie and Ontario, show at once



NIAGARA FALLS.

the great difference in the level of these two lakes. The course of the St. Lawrence, it has been remarked, from the eastern extremity of Ontario, has a singular conformity to that of the opposite Atlantic coast, having a general northeast direction. After its exit from the lake it receives, near Montreal, the Ottawa, from the northwest and, increased by numerous smaller streams, enters the Atlantic by a wide bay or gulf.

16. North of the basins of the great lakes we find that the cold regions of the northwest have also their great rivers. The Portage de Prairie, about 150 feet above Winnipeg and Superior, is a swampy district, which at this point forms the dividing line between the waters that flow to the St. Lawrence basin and those that belong to the basin of Lake Winnipeg, the receptacle of numerous streams. The southern branch of the Saskatchawan rises in the Rocky Mountains, near the sources of a branch of the Columbia and the Missouri, traverses 15 degrees of longitude, and falls into Winnipeg, in 53° north. This lake is connected with Hudson's Bay by the Severn and the Nelson rivers. In latitude 56° 41′, and longitude 110° is Methy Portage, upward of 1,500 feet high, and forming part of a range running southwest, which separates the rivers flowing north from those that flow south or east—on the north side is a valley 1,000 feet deep, and a water passage is open, with some interruptions, to Lake Athabasca. The basin of the Mackenzie lies north of the Methy Portage. The Mackenzie is one of the large rivers of the globe, draining an area of about 550,000 square miles; but such is the complicated water-system of this region, with its endless lakes communicating with each other, that it is almost impossible to say what should be considered as the source of this river; but if we consider the Athabasca as its remote branch, the Mackenzie flows through about 16 degrees of latitude into the Arctic Ocean. The sources of Pearl River are much farther to the north; but if its course through Slave Lake be followed into the Mackenzie, the whole course of the stream will be found as long as if we traced it from the more southern branch. East of the Mackenzie, and flowing into the Arctic Ocean, are the Coppermine and Back rivers.

17. A curious resemblance in the water-system of the southern and northern parts of North America are here recognized. The elevated table-land in which the Mississippi and the affluents of Lake Superior rise, divides the continent east of the Rocky Mountains into two parts. The basin of Winnipeg may be considered as a continuation of that of the St. Lawrence, or as part of one high plateau divided into two portions. Down the southern slope the Mississippi flows to the warm regions of the Gulf of Mexico; and down the northern the rival river Mackenzie runs into the Arctic Ocean. The St. Lawrence and the large streams that enter the west side of Hudson's Bay are the great channels that carry off the collected waters of this elevated region of lakes to the Atlantic Ocean.

18. It is a fact well ascertained, that the average temperature on the west coast of North America is higher than on the eastern. In the Oregon valley it is said to be higher than in corresponding latitudes on the Atlantic coast, by an amount equivalent to five or six degrees of latitude, and the winters are also much moister. The general nature of the North American climate, however, may be best understood by what is now known of the United States and the Canadas. The northwest territories east of the Rocky Mountains are cold and inhospitable, and not adapted to the agriculturist. On the eastern part of the continent agriculture has not advanced farther than 51° or 52° north; but the limit of successful cultivation at the present day must not be taken as the limit that can not be passed. The cold within the United States increases as we advance westward on the same parallel, and this is independent of elevation, as is evident from comparing the temperature in the corresponding points on the Mississippi and the Atlantic, and as may be inferred from the same vegetation succeeding in a higher latitude on the Atlantic coast than in the basin of the Mississippi. The climate of Mexico is essentially tropical; but on account of its various altitudes is properly divided into several classes—hot, temperate, and cold, corresponding to the coast regions, the slopes, and the table-land. The same classification obtains in Central America, although the distinctions are not so plainly discernible as in Mexico.

19. A remarkable analogy exists in the structure of the land in North America and in central and northern Europe. Gneiss, mica-schist, and granite prevail over wide areas in the Alleghanies, on the Atlantic slope, and the northern latitudes; and in the high and middle latitudes, the Silurian strata extend over 2,000 miles. Crystalline and Silurian rocks form the substratum of Mexico, for the most part covered with plutonic and volcanic formations and secondary limestone. The Rocky Mountains are mostly Silurian, except the east ridge, which is of stratified crystalline rocks, amygdaloid, and volcanic productions. The coast chain has the same base, with immense tracts of volcanic rocks, both ancient and modern, especially obsidian. In North America volcanic action is almost entirely confined to the coast and highlands along the Pacific.

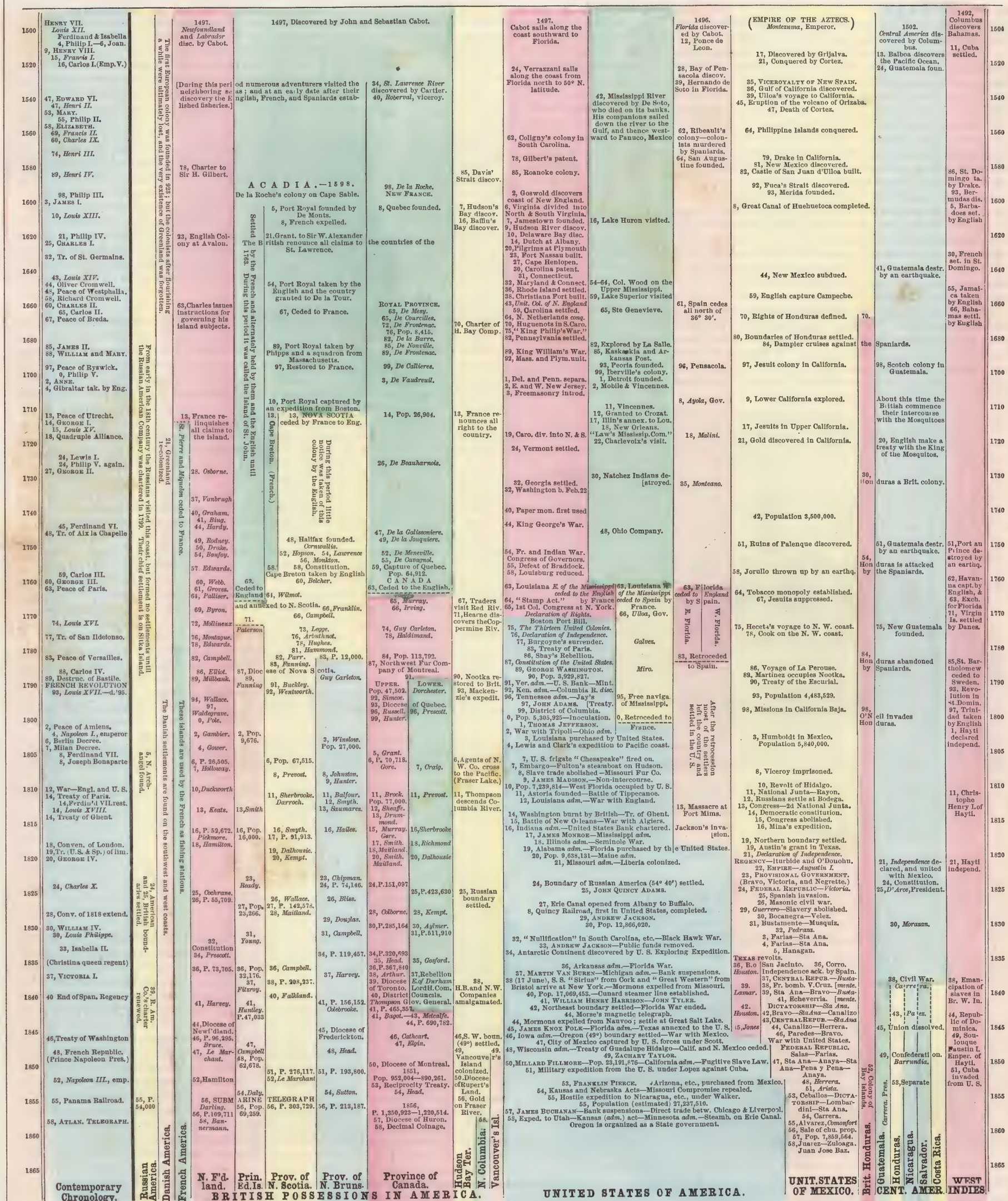
20. The principal minerals are gold, silver, copper, iron, lead, and coal. The first two are found in great abundance in Mexico; but since 1848 the chief field of gold gathering has been California. Copper is chiefly found in the vicinity of Lake Superior; lead in southwestern Wisconsin, and the neighboring districts in Iowa and Illinois. Coal and iron are extensively deposited—the coal-fields of the United States alone cover an area of 133,000 square miles. The coal is generally bituminous; but anthracite is also met with, and very abundantly in eastern Pennsylvania. There are various other coal-fields of great extent in different parts, including New Brunswick and Nova Scotia on the northeast, Vancouver's Island on the northwest, and the Gulf States in the south. Coal has also been found in California and Oregon. Iron is found in every State of the Union, in Mexico, and Central America; but the chief deposits are in Pennsylvania. Salt is likewise widely diffused.

21. The forests of North America are of vast extent. The northern forests consist chiefly of pines, oak, ash, hickory, red beech, and the lofty Canadian poplar. The prevailing growths of the middle zone are sycamore, chestnut, black walnut, hickory, maple, white cedar, wild cherry, red birch, locust, oak, etc., and the tulip-tree, the pride of the American forest. In the inter-tropical forests the trees attain an enormous growth, and there is found the mahogany and numerous other valuable woods. The Arctic flora is not essentially different from that of Europe and Asia in the same latitude.

22. Maize or Indian corn is the only important farinaceous plant peculiar to the New World. Millet, cocoa, vanilla, copaiba, jalap, sassafras, tobacco, and the cochineal plant, etc., are also indigenous. Wheat, barley, oats, peas, and rice succeed well; the last named in the southern swamps and inundated lands. The same may be said of all the fruit-trees in their peculiar latitudes or thermal zones, such as the orange, lemon, peach, plum, apple, etc.; but the native fruits are mostly of the nut kind. Sugar, coffee, and cotton are among the staple productions of the southern sections; and in the middle and temperate regions the grape and other vines succeed to perfection. The tea-tree and other exotics have been introduced, but as yet with only partial results.

23. The most formidable of North American animals is the grizzly bear, which is peculiar to this country. Its haunts are the Rocky Mountains and the adjacent hilly country from latitude 61° downward into Mexico. The white or polar bear, though not peculiar to America, is found in great numbers on its northern coast, attaining a higher latitude than any other known animal. The bison, or American buffalo, the largest native quadruped, is distributed over a great portion of the temperate regions; its chief haunts, however are the central prairie lands, where it is seen in vast herds. The deer tribe is numerous, and specifically various. The most remarkable is the moose-deer or elk, the most northerly of all the ruminant animals. On the Rocky Mountains are found a race of sheep and another of goats peculiar to these elevated regions. The wolves and dogs of America are numerous, and some of them peculiar. Among the latter are the well-known dog of Newfoundland and the Mackenzie River dog. Foxes are also numerous and in great variety. Beavers, otters, raccoons, opossums, hares,

CHRONOLOGICAL CHART OF NORTH AMERICAN HISTORY.



musk-rats, marmots, squirrels, etc., are among the smaller quadrupeds of North America. The manati is peculiar to intertropical America. Monkeys are confined to the south.

24. The reptile tribes are very numerous throughout the continent, and many of them possessed of the most dangerous poisons. The most noted of this class is the rattlesnake. The cayman is found only in the rivers and lagoons of the south, where it frequently attains a vast size. The bird tribe comprises 471 species, of which 386 are peculiar to North America. The list includes a variety of eagles, vultures, hawks, owls, etc. Wild turkeys are found in vast numbers in the woods of both Americas; and the varieties of water-fowl near the seas and lakes are wonderfully numerous. Insects abound in a thousand forms, many of which are noxious; but before all other countries America is the home of the butterfly. Spiders and centipedes are types of the venomous species, and in this category we may place the mosquito, which in sections renders the country uninhabitable.

25. North America, at the present day, is peopled by three distinct varieties of mankind—the Indians, who are the native American race, and have universally a reddish copper-colored complexion; the negroes, who were originally brought from Africa, and who have multiplied to a vast extent; and the Europeans and their descendants, who are the ruling people throughout the continent. Besides these are the mixed races, as the mulatto, sprung from the union of the European and African; the meztizo, sprung from the European and American; and the zambo, sprung from the American and African. In this connection may also be enumerated the Chinese in California.

26. Throughout America the aboriginal races preserve a wonderful uniformity in their physical organization. The same type is found in both divisions of the continent and through all its zones. They are distinguished from the two other races by the color of their skin and by their long, coarse, and black hair (which is never crisped like that of the African, nor curly, as that of the European sometimes is), as well as by a scantiness of beard. Their senses of sight, hearing, and smell are remarkably acute. In war and the chase they are indefatigable; but they are averse to regular labor. In temperament cold and phlegmatic, they manifest an extraordinary insensibility to bodily pain. They have good natural intellects, and exhibit both grace of delivery and force of language in their public speaking.



NORTH AMERICAN INDIANS AND THEIR PONIES.

27. The most northern parts of the continent, along the shores of the Arctic Ocean and of Baffin's Bay, are scantily peopled by a race called the Esquimaux. They differ in many respects from the Indians, and are probably of Asiatic origin. The Esquimaux are of short stature, lead a wandering life, and subsist chiefly upon fish.

28. North America is politically divided into the Russian, British, Danish, and French colonies; the United States of America, and the United States of Mexico, the States of Central America, etc. The extent, approximate population, etc., of these are as follows:

Divisions.	Area, sq. m.	Popula. (1855).
Arctic Lands: Greenland, etc.	1,000,000	100,000
Russian America	481,276	80,000
Hudson's Bay Territories	2,436,000	100,000
British Colonies	442,388	3,000,000
United States of America	2,936,116	27,500,000
United States of Mexico	829,916	7,750,000
British Honduras, etc	18,600	12,000
States of Central America	160,000	2,019,000
Total	8,304,236	40,561,000

29. The first discoverer of North America was John Cabot, a native of Venice, who, under a patent of Henry VII. of England, sailed from Bristol in 1497, and on the morning of the 14th June came in sight of North America—the coast, it has been conjectured, of Labrador. This was a year before the discovery of South America by Columbus, which took place in May, 1498. In the summer of 1498, Sebastian, the son of John, sailed from England with two ships, and directing his course by Iceland reached Newfoundland. The next adventurer that reached these shores was Cortereal, a Portuguese nobleman, who sailed for and surveyed the coast of Labrador in the last year of the fifteenth century. In a second voyage made shortly afterward he was lost, and subsequently his brother, who sailed in search of him, shared a similar fate; and in 1503 still another expedition, fitted out by the king of Portugal, to ascertain the fate of the two brothers, never returned.

30. In 1512 Sebastian Cabot sailed again for America, with a small squadron. This expedition visited Hudson's Bay. In the same year Florida was discovered by Ponce de Leon. The next name that occurs in the history of American discovery is that of Giovanni Verazzano, a Florentine, who was sent out by Francis I. of France, in 1524, and who surveyed upward of 2,000 miles of coast, comprising the whole of the eastern coast of the United States, with a large portion of that of British America. Verazzano gave the name of New France to the region he had discovered. In a subsequent voyage he and his party were destroyed by the Indians. Ten years after, Jaques Cartier sailed from St. Malo for Newfoundland, the north coast of which he surveyed and minutely described. He performed several other voyages, in one of which he entered the St. Lawrence, being the first European who had done so, and ascended the river as high as Montreal. An attempt was afterward made by Roberval, a nobleman of Picardy, to form a settlement in America, but the attempt was unsuccessful, the only result being a fort, which the French erected near the present site of Quebec, and named Charlesbourg. This fort, however, was the first European settlement formed in that part of America. Roberval sailed on another voyage of discovery some time after, and perished.

31. Previous to this the Spaniards had conquered Mexico, and a desire to extend their dominion in a north direction led to further discoveries in North America. The coast of California was discovered by Ximenes, a pilot, who had been dispatched by Cortez on a voyage of discovery. In 1539 the Gulf of California was first entered by Francisco de Ulloa, another adventurer also sent out by Cortez. The Spaniards performed several subsequent voyages, but none attended by any results worthy of notice until the years 1596 and 1602, when Sebastian Viscaino proceeded along the coast as far as the river Columbia. These discoveries were cotemporary with or followed by those of Davis in 1585, Weymouth in 1602, Knight in 1606, Hudson in 1610, Button in 1612, Bylot and Baffin in 1615, etc.

32. The first in point of time among the more modern voyagers to the coasts of North America were Behring and Tchirikow, both Russians, who were sent out in 1725 by Catherine to survey the north coasts. They made several important discoveries, besides setting at rest the disputed point whether Asia and America were two separate continents. The claims of Russia to the American coast north of 55° are founded on the voyages of these two enterprising seamen. In 1776 Captain Cook, accompanied by Captain Clark, surveyed the northwest boundaries of America, tracing the coast from the 50th parallel, to Cape Prince of Wales, and thence steering northwest till arrested by ice islands in about latitude 70° north. The remaining names associated with American maritime discovery are Meares, Vancouver, Kotzebue, and more recently Ross, Parry, Franklin, Beechy, and Kane. In 1853 the existence of a northern water passage was verified.

AMERICAN ARCTIC LANDS.

1. North and northeast of continental America, and west of Greenland, the Arctic Ocean contains an extensive archipelago. This group of islands, together with Greenland and Iceland, constitute the American Arctic lands.



2. The Arctic Archipelago is separated from Greenland by Davis' Strait, Baffin's Bay, and Smith's Sound, and from the mainland of America on the south by Hudson's Strait and Fox Channel, and a long series of straits, channels, and gulfs extending east to west, terminating at Cape Bathurst. The principal constituents of this archipelago are—Grinnell Land (west of Smith's Sound), North Devon and Parry islands, Baring Island, Victoria Land, Cockburn Island, Cumberland Island, etc. Southampton Island, at the entrance to Hudson's Bay, may also be considered as a member of this group. Grinnell Land is the most northern and latest discovered of these northern lands, and beyond this, according to Dr. Kane, there is open sea, supposed to extend to the pole.

3. Dense fogs and violent storms prevail in these inhospitable regions. Their shores are dismal and dreary, and covered with continual ice and snow; and the entire surface of the sea is beset with fields and masses of floating ice. Winter reigns supreme for eight or nine out of the twelve months of the year, and the only or at least the greatest degree of light the inhabitants enjoy during this protracted season is that which proceeds from the aurora borealis.

4. The Arctic Ocean freezes even in summer, and during the winter months—from September to May—a continuous body of ice extends in every direction. Some of the masses which line the shores extend many miles in length, and present sea fronts of 200 feet or more in height; while ice-fields of vast extent and thickness are frequent, and so closely packed together that no opening is left between them. The icebergs which are seen floating about vary from a few yards to miles in circumference, and rise to many hundred feet in height.

5. Summer scarcely makes any impression on this icy region. It brings, however, a sun

which, during its short reign, never dips below the horizon, and the long night of winter is turned to a short-continuing day of summer. A few lichens and stunted pines may be occasionally seen, but virtually vegetation is extinct; and the only animals inhabiting this region are white bears, seals, etc., with aquatic birds and fish.

6. The history of adventure in the Arctic seas presents a striking disproportion between effort and achievement. All that human daring could do has been done to open up the mysteries of these dreary regions, but hitherto without practical result. The first attempt to explore the polar seas for a northwest passage was made by Captain Hudson in 1607; and during the century following several other attempts were made, but with only partial success. The attempts of Parry and Ross (1817–24) and of Franklin and Beechey (1826) were more successful, and great progress was made in arctic geography. Another expedition under Ross (1829–33) added further to a knowledge of these regions, and finally the expedition under Sir John Franklin sailed in 1845 and—was lost. Several expeditions have since and at various times been dispatched in search of the missing navigator, and among these two from the United States under command of Dr. Kane. On the whole the discoveries have been extensive, but of little if any commercial value, and ultimately (in 1853) it was ascertained that there existed a northwest passage, but that it was impracticable for vessels. The actual state of our geographical knowledge of this region is fully illustrated on the map.



SCENE IN THE ARCTIC OCEAN.

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7. Greenland lies to the northeast of the continent, from which it is divided by Baffin's Bay and Davis' Strait. Its eastern shores are washed by the Atlantic. Cape Farewell, in latitude 59° 48′, is its most southerly point—how far it extends north has not been ascertained.

8. The whole country is high and rocky, its surface presenting a chaotic assemblage of sterile mountains, bare or covered with ice. The valleys also have the same boreal aspect. A range of lofty mountains traverses its center, dividing it into east and west Greenland. The east shore, above 65°, is an impenetrable accumulation of ice, and is much colder and more barren than the transmontane districts. On the west the shore is high and rugged, and rises close to the water's edge in cliffs and mountains. The whole coast is indented with fiords or inlets, and lined with islands, the largest of which is Disko, in the bay of the same name.

9. The rocks are chiefly primary, and consist of granite, gneiss, clay-slate, porphyry, etc. Copper ore, black lead, and precious stones are abundant, and coal is found on the island of Disko. Hot springs are seen on the coast; but no active volcanoes appear. Vegetation, even in the south, is almost suspended; a few stunted birch, alder, and willow trees, and several mosses, fungi, lichens, etc., constitute its botany. On the west coast, however, the cultivation of culinary vegetables has succeeded. Among the wild animals, the reindeer in the south and the polar bear in the north are the principal, and there are also white hares, foxes of various kinds, and dogs. Seals abound on the southern coast, whales inhabit the seas, and the fiords and rivers contain abundance of fish. Eagles and other birds of prey and sea-fowl are very numerous. Fishing and sealing employ a large number of the inhabitants.



INTERIOR OF AN ESQUIMAUX HUT.

10. The climate, as might be assumed, is intensely cold. During the summer, however, the sun has considerable power, and its short reign is a continuous day. The winter is one long night, the darkness of which is only relieved by the moon, or by the aurora, which in these latitudes shows with a splendor unknown in more meridial climates.

11. The Danish colonies extend north on the west coast to about 74°, and occupy an area of only 4,000 square miles. For administrative purposes these colonies are formed into three inspectorates, called respectively North Greenland, Middle Greenland, and Julianshaab, each of which is subdivided into colonies or districts. Godhavn, on the island of Disko, in 69° 12′, is the residence of the northern inspector, and Godthaab, in 64° 20′, that of the middle inspector. The population of these two towns is respectively 250 and 740. Upernavik, in 73° 55′, is the most northerly settlement. The best inhabited district is that of Julianshaab, near Cape Farewell, which has 2,200 inhabitants. The whole population in 1851 numbered only 9,400 souls, of whom all except about 250 were Esquimaux. The number of native Christians is stated at 1,100, and are in charge chiefly of the Moravians.

12. Greenland was first discovered by an Icelander in the first part of the tenth century, and the first colony was formed in 923. This colony is said to have flourished for many years, but was subsequently lost. The first of the modern settlements was established in 1721, under the auspices of the Danish crown.

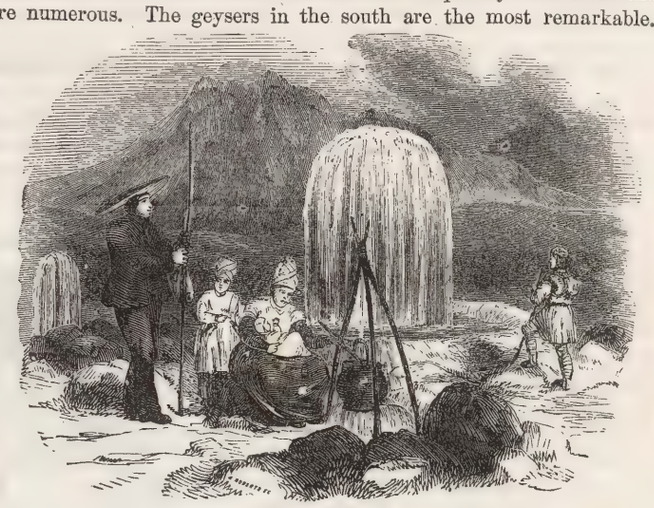
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13. Iceland is a large island extending between latitudes 63° 24′ and 66° 33′ north, and longitudes 13° 25′ and 24° 31′ west, and is distant from the east coast of Greenland about 200 miles. Area 38,250 square miles.

14. The coasts, especially the western, are deeply indented with fiords or estuaries of the rivers which flow from the mountains and glaciers of the interior. The southern portion of the island is traversed east and west by rugged and irregular mountains, while offsets branch out in all directions toward the coast, forming various peninsulas, and terminating in high and steep promontories. Between these and in the vicinity of the fiords are green valleys, and even the low mountains are not unfrequently covered with grass, affording summer pasture for the cattle.

15. The interior of the island is a dreary desert, and consists partly of snow mountains called *jökuls*, many of which are also volcanoes, and partly of vast tracts covered with lava, scoriæ, and volcanic sand. There are also several lakes, the largest of which, called Myvatni is about 40 miles round. The most extensive mass of icy mountain is that called Klofa, in the southeast, which lies behind another range of mountains that lines the coast, and forms a mass of ice and snow estimated to cover one tenth part of the island. These icy masses are often rent by the internal heat and volcanic action, and fall down in terrible avalanches. The glaciers present the same phenomenon of progressive motion as those of Switzerland. Vast agglomerations of basaltic pillars are seen in many places, as well as of tufa, and some mountains are incrusted with sulphur.

16. The whole island, indeed, appears to be volcanic, and there are still numerous volcanoes in full activity. Occasionally eruptions of fearful violence occur. The eruptions of Mt. Hecla are frequent, but not generally violent. The most noted volcanic eruptions on record are those of 1755 and 1783: in the first-named year the eruption of the volcano of Katlegia, near the east coast, destroyed 50 farms, and in the latter the Skeidara, and other volcanoes of the Klofa ridge, covered with lava several fertile and flourishing districts. In September, 1846, so violent was the eruption of Hecla that ashes ejected from it were carried as far as the Orkney Islands. The highest mountain in Iceland is believed to be the Snæfell, in one of the western peninsulas. Its absolute height is 4,600 feet. Mt. Hecla is not so high by 200 or 300 feet. On the southern and western coasts volcanic islands have frequently risen from the sea. Boiling springs are numerous. The geysers in the south are the most remarkable. These throw up at periodic intervals columns of boiling water to a considerable height; and that known as the Great Geyser ejects a column 10 feet in diameter and upward of 100 feet in height. There are also floods or bogs of boiling mud, numerous cones and craters now quiescent, and columns of dense smoke and steam issuing from many spots in the vicinity of the geysers.



THE GREAT GEYSER.

17. For administrative purposes Iceland is divided into three *fiordnungs* or districts, and these into 19 *syssels* or counties. The syssels are governed by *sysselmen* or magistrates, who are at the same time collectors of the king's taxes. The districts are in charge of *amtmen* or deputy governors, and the whole colony of a *sliftamtman* or governor-general, who is appointed by the king for five years. The affairs of the island are regulated by the *althing* or legislature, a council composed of 20 members, one for Reikiavik and one for each syssel.

18. In 1850 the population was given at 59,157 souls. The Icelanders are genuine descendants of the old Scandinavians or Norsemen, and retain all the primitive peculiarities of that renowned family. They are, however, short lived, and cutaneous and pulmonary affections are common among them. Leprosy of the worst kind is indigenous to the country, and for this disease alone there are four hospitals established. In educational matters the inhabitants are far in advance of many European nations. Not only elementary, but a superior education is common, and at Bessestad, near the capital, there is a college with three professors, in which most of the clergy are educated. During the last century much attention has been paid to the Icelandic language and literature. The Icelandic language is the standard of the Scandinavian dialect of the Gothic. In the middle ages it was known as the Dänsk Tunga, but since its disuse in Scandinavia it has been styled exclusively Icelandic.

19. The Icelanders are an industrious people, and pay particular attention to the rearing of livestock. The number of farms is about 6,000; and it is estimated that there are in the island 40,000 head of horned cattle, 500,000 sheep, and 55,000 horses. About 1,000,000 pounds of wool are exported annually. Hay is the great crop. Those who live on the coast attend chiefly to fishing, which is very productive. But little is manufactured, and, except coarse cloths, gloves, mittens, stockings, and other articles of domestic use, supplies are almost

wholly imported. The ordinary diet of the people is milk, butter, and fish, and the Iceland moss, a species of lichen, is a common food. The foreign trade is comparatively valuable. The exports are fish, oil, salted meats, wool, eider down, and sulphur. Turf is the fuel most used, and fossil wood impregnated with bitumen abounds. Iron and copper are found, but none are worked. The reindeer, originally imported from Norway, has greatly multiplied and lives in a wild state.

20. The only town of any pretensions is Reikiavik, the capital, built on the south side of an inlet of the Faxefiord, on the southwest coast of the island. It has about 900 inhabitants, who are chiefly employed in trade and commerce. It is the residence of the governor-general and other superior officials, and the seat of the supreme court of judicature. The houses are constructed of wood with a small garden attached to each, in which most of the common vegetables are cultivated. To the southwest of Reikiavik is the peninsula of Alftanes, adorned with the church and school of Bessestad, and a number of pretty cottages. Gardé, in the same neighborhood, is the residence of the archdeacon of the island; and Hafnarfiord, a small sheltered port some distance south of Reikiavik, has some score of houses and about 100 inhabitants. The population of the capital is more Danish than Icelandic. In the northern district is the village of Eyafiordur, and a factory called Husavik, on the Skialfiandafiord, from which sulphur from the neighboring mines is shipped. Kolum is now an insignificant place. Other factories are scattered about the coast, especially in the west. The majority of the people, however, live in detached cottages or farms, chiefly on or near the fiords.

21. Iceland was discovered in the middle of the ninth century. The first settlement was made in 874 by a Norwegian named Ingolf, who established himself at Reikiavik. His colony was soon after increased by immigrants, refugees from the tyranny of Harold Harfagra, who instituted a republic and had their Althing, which was held at Thingvalla, on the southern coast. Several learned works have lately appeared respecting the history of this period. About the year 1000 Christianity was established in Iceland, and in 1057 Isleif, bishop of Skalholt, introduced the art of writing with the Latin alphabet, the Kunic characters having been till then used only for inscriptions on stone, wood, or metal. Oral lessons had, however, kept up the historical traditions, and the feats of their heroes were recorded in song. Icelandic literature now began to be cultivated, and societies were formed for mutual instruction and education. The historical compositions called Sagas have been published, as well as many of the Icelandic songs and poems. In 1120 was framed the code of laws called Grágás. In 1204 the Icelanders, partly through intrigue and partly from fear, submitted to Haco, king of Norway, but their lands and institutions were maintained to them. In 1387 Iceland together with Norway became subject to Denmark; and in 1550 the Lutheran reformation was introduced.

22. Several other islands in the North Atlantic, and near Greenland and Iceland, belong also to Denmark. Of these the largest is Jan Mayen's Land. None have permanent inhabitants.

RUSSIAN AMERICA.

1. Russian America comprehends all the northwest coasts on the Pacific and the adjacent islands north of the parallel of 54° 40′ north, and the portion of the mainland west of the meridian (about 141° west) of Mount St. Elias. The area is computed at 580,000 square miles.

2. The part of the mainland south of Mount St. Elias consists of a narrow belt which is skirted on the east by a mountain ridge parallel to the coast, and has nowhere a greater width than ten marine leagues. Northward of the 60th parallel the mainland forms a vast peninsula extending in a general west-northwest direction toward Asia, and at one point reaches that continent within a distance of 48 miles. Throughout its western part the prevailing feature is mountain; while the part lying along the Arctic Ocean, with the exception of a stretch between the meridians 141° and 146° west, where the Rocky Mountains traverse the coast and terminate, is a dead flat, often nearly on a level with the sea, and never more than from 10 to 20 feet above it. From Point Barrow the direction of the line is southwest, rising gradually toward Cape Lisburn, which is 850 feet high. It now turns south, forming between the two large inlets of Kotzebue and Norton sounds the remarkable peninsula of Prince of Wales, which projects into Behring's Strait, and terminates in an elevated promontory, remarkable as the most westerly point of America. From Norton Sound the coast turning first southwest and then south-southeast, becomes indented by several large bays, including those of Bristol Bay and Cook's Inlet, on the opposite side of the long and narrow peninsula of Aliaska; and is lined almost throughout by groups of large islands, of which the most important belong to the Aleutian, Kodiak, and King George III. archipelagoes. The greater part of the coast last described is very bold, presenting a succession of lofty volcanic peaks, two of which, on the west coast of Cook's Inlet, have the respective heights of 11,270 and 12,060 feet. Mount St. Elias has an elevation of 16,758 feet.



HUT OF ALEUTIAN ISLANDERS.

3. The interior of the country is very imperfectly known. The climate is not so cold as the east parts of the continent under the same latitudes. It is, however, far too rigorous to admit of agricultural operations, and the whole value of the territory and adjacent seas is derived from their fisheries and hunting grounds. The Aleutian Islands extend from the peninsula of Aliaska to that of Kamtschatka, through 30 degrees of longitude. They include several subordinate groups, and are all rocky and volcanic, some having cones in present activity. The Kodiak group is divided from Aliaska by the narrow Strait of Chelikof. It consists of one large and several small islands, with broken and rugged coasts. On the north side of the main island is the harbor and station of St. Paul. King George III. Archipelago comprises the islands along the northwest coast, as Sitka, Baranof, and others. These are all inhabited.

4. The extensive territory above described has been granted to a Russian American fur company, which was established under charter from the Emperor Paul, 8th July, 1799, with power to occupy and bring under the dominion of Russia all territories north or south of 55° not previously occupied and placed under subjection by another nation. By treaties with the United States, in 1824, and Great Britain, in 1825, its present boundaries were fixed; but subsequently the British acquired the right of using the mainland south of 58°, and also the exclusive privilege of supplying the Russian posts with agricultural produce and provisions. The charter of the company was renewed in 1838, when it had 36 hunting and fishing establishments. The company's possessions include, besides the American territory, all the Asiatic coast of the Pacific north of 51°, and the Kurile Islands to their south point in 45° 50′.

5. Russian America is divided into six agencies, and is controlled by a governor-general, who resides at New Archangel, on the island Sitka. The population is estimated at 54,000 souls. Of these about 1,000 are Russians, 2,500 creoles, and 10,000 natives of the Kurile, Aleutian, and Kodiak islands. The remainder are Esquimaux, who enjoy a greater or less degree of independence. The Kuriles, Aleutes, etc., are regarded as subjects of the company, in whose service every man between 18 and 50 years of age may be required to pass at least three years.

6. New Archangel, the principal post, is situate on the island of Sitka, in latitude 57° 30′ and longitude 135° 13′. It was founded in 1805, and is a military station and the chief post of the company. The fort mounts 18 short eighteen and 42 long nine pounders, and there are about 300 officers and men; and the company have 12 vessels varying from 300 to 400 tons, mounting 10 guns of different caliber. A Greek bishop with several priests and deacons reside here, and also a Lutheran minister; and there are schools for the children of Europeans and half-breeds.

7. Subordinate to Sitka there is a smaller establishment of the same kind at Aliaska, which supplies the posts on Bristol Bay and Cook's Inlet, which are all connected with minor interior stations. Another station in Norton Sound has its own inland dependencies. The company has also permanent forts or flying posts in the Aleutian and Kurile islands, and a chain of agencies from Okhotsk, in Kamtschatka, to St. Petersburg, for the transmission of merchandise, etc.

8. The company's trade is considerable, supplying not only Russia with furs, but also the markets of China, through Kiachta, on the Tartar frontier. The annual export is estimated at 10,000 seal, 1,000 sea otter, 12,000 beaver, and 2,500 land otter, fox, and marten skins, and about 20,000 sea-horse teeth. Formerly the Russians killed the seal young and old; but now they follow the example of the English company, and kill only such a limited number of males as have attained full growth.

BRITISH AMERICA.

1. The British Possessions in North America lie chiefly north of the 49th parallel; and, exclusive of the Russian territory in the northwest, occupy the whole northern region of the continent and adjacent islands. The eastern section, however, projects southward as far as latitude 42°; and under this head the Bermuda Islands, in latitude 32° 20′, are also included.

2. The vast and valuable possessions comprise the territory of the Hudson's Bay Company, the provinces of Canada, New Brunswick, and Nova Scotia, and the island colonies of Prince Edward, Newfoundland, and Bermuda. The extent and population of these several political divisions in 1851 and 1856 are exhibited in the annexed table:

Political Divisions.	Area, sq. m.	1851. Population.	1851. Pop. sq. m.	1856. Population.	1856. Pop. sq. m.	Chief Towns.
Hudson's Bay Territory	2,436,000	80,463	0.1	100,000	0.1	York Factory.
Canada	357,822	1,842,265	5.1	2,200,000	6.1	Quebec.
New Brunswick	27,704	193,800	7.0	220,000	8.0	Fredericton.
Nova Scotia, etc.	18,746	276,117	14.7	300,000	16.0	Halifax.
Prince Edward Island	2,134	62,678	29.3	65,000	30.4	Charlotte-Town.
Newfoundland	35,913	101,600	2.8	120,000	3 3	St. John's.
The Bermudas	19	11,092	583.8	12,000	631.6	St. George.
Grand Total	2,878,338	2,563,015	0.9	3,017,000	1.05	

3. Formerly the British were the owners also of the whole country east of the Mississippi,

BRITISH PROVINCES

WESTERN PORTION.

100 Geographical or 115.26 Statute Miles, to one inch.

1/7,247,550 of Nature

Scale for Main Maps
STATUTE MILES 69.16 to 1°
0 25 50 100 150

LONGITUDE WEST FROM GREENWICH
94 92 90 88 86 84 82 80 78 76 74 72

LATITUDE
48 46 44 42

CANADA WEST
CANADA EAST
NEW BRUNSWICK
NOVA SCOTIA
NEWFOUNDLAND
PRINCE EDWARD I.
UNITED STATES
MINNESOTA
LAKE SUPERIOR
LAKE MICHIGAN
LAKE HURON
LAKE ERIE
LAKE ONTARIO
ATLANTIC OCEAN
GULF OF ST. LAWRENCE
BAY OF FUNDY

Rainy Lake · Rainy Lake L. · Black Bay · Thunder Bay · Hunters I. · Pigeon R. · Isle Royale · Michipicoten I. · Michipicoten Bay · L. Winnibigoshish · R. St Louis · Eagle Harbor · Keweenaw Pt · Superior · Fond du Lac · Apostle Is. · La Pointe · Keweenaw B. · White Fish Point · Marquette · Manitou R. · Presque Isle R. · Sault St. Mary · Sugar I. · St. Joseph I. · Drummond I. · North Channel · Grand Manitoulin I. · Manitou Is. · Grand Traverse B. · Beaver I. · Cape Hurd · Cabots Head · Thunder B. · Sydenham · Collingwood · Barrie · Penetanguishene · L. Simcoe · Peterboro · Port Hope · Belleville · Napanee · Bay of Quinte · Kingston · Cape Vincent · Watertown · Sackets Harbor · Oswego · Rome · Utica · Schenectady · Troy · Albany · Saratoga Sp. · Whitehall · Lake George · Ticonderoga · Rutland · Burlington · Plattsburg · Ogdensburg · Brockville · Prescott · Morrisburg · Cornwall · Alexandria · Ottawa City · Pembroke · Mac Nab · Hull · Aylmer · Bytown · Rideau Canal · Rideau Falls · Perth · Carleton Place · Lanark · Almonte · Packenham · Arnprior · Renfrew · Bonnechere R. · Madawaska R. · Petawawa · Chats Falls · Deux Rivières · Mattawa · Trois Rivières · Lockport · Rochester · Syracuse · Geneva · Cayuga L. · Ithaca · Binghamton · Corning · Elmira · Catskill · Hudson · Poughkeepsie · Newburgh · New Haven · New York · Bunkirk · Buffalo · Niagara Falls · Queenston · Lundys Lane · Welland Canal · Port Colborne · Port Maitland · Dunnville · Waterloo · Marsh V. · Fort Robinson · Chippewa · Grand R. · Brantford · Woodstock · Hamilton · Guelph · Berlin · Stratford · Goderich · Toronto · Barrie · Whitby · Port Hope · Cobourg · Belleville · Napanee · Kingston · Lake Ontario · Lake Erie · Detroit · Windsor · Chatham · St. Clair · Port Sarnia · London · Port Stanley · St. Thomas · Simcoe · Brantford · Oxford · Port Huron · Sagina · Port Sanilac · Saginaw · Grand Haven · Grand Rapids · Pontiac · Milwaukee · Racine · Chicago · Lansing · Kalamazoo · Jackson · St. Joseph · Michigan City · Toledo · Sandusky · Cleveland · Akron · Tiffin · Fort Wayne · Coldwater · Adrian · Monroe · Erie · Warren · Coudersport · Franklin · Williamsport · Wilkesbarre · Montrose · Binghamton · Ithaca · Geneva · Cayuga L. · Auburn · Albany · Troy · Saratoga Sp. · Whitehall · Lake George · Ticonderoga · Rutland · Burlington · Plattsburg · Ogdensburg · Brockville · Prescott · Morrisburg · Cornwall · Alexandria · Ottawa City · Pembroke · Mac Nab · Hull · Aylmer · Bytown · Rideau Canal · Rideau Falls · Perth · Carleton Place · Lanark · Almonte · Packenham · Arnprior · Renfrew · Bonnechere R. · Madawaska R. · Petawawa · Chats Falls · Deux Rivières · Mattawa · Trois Rivières · Three Rivers · Montreal · Lockport · Rochester · Syracuse · Geneva · Cayuga L. · Ithaca · Binghamton · Corning · Elmira · Catskill · Hudson · Poughkeepsie · Newburgh · New Haven · New York · Bunkirk · Buffalo · Niagara Falls · Queenston · Lundys Lane · Welland Canal · Port Colborne · Port Maitland · Dunnville · Waterloo · Marsh V. · Fort Robinson · Chippewa · Grand R. · Brantford · Woodstock · Hamilton · Guelph · Berlin · Stratford · Goderich · Toronto · Barrie · Whitby · Port Hope · Cobourg · Belleville · Napanee · Kingston · Lake Ontario · Lake Erie · Detroit · Windsor · Chatham · St. Clair · Port Sarnia · London · Port Stanley · St. Thomas · Simcoe · Brantford · Oxford · Port Huron · Sagina · Port Sanilac · Saginaw · Grand Haven · Grand Rapids · Pontiac · Milwaukee · Racine · Chicago · Lansing · Kalamazoo · Jackson · St. Joseph · Michigan City · Toledo · Sandusky · Cleveland · Akron · Tiffin · Fort Wayne · Coldwater · Adrian · Monroe · Erie · Warren · Coudersport · Franklin · Williamsport · Wilkesbarre · Montrose · Binghamton · Ithaca · Geneva · Cayuga L. · Auburn · Albany · Troy · Saratoga Sp. · Whitehall · Lake George · Ticonderoga · Rutland · Burlington · Plattsburg · Ogdensburg · Brockville · Prescott · Morrisburg · Cornwall · Alexandria · Ottawa City · Pembroke · Mac Nab · Hull · Aylmer · Bytown · Rideau Canal · Rideau Falls · Perth · Carleton Place · Lanark · Almonte · Packenham · Arnprior · Renfrew · Bonnechere R. · Madawaska R. · Petawawa · Chats Falls · Deux Rivières · Mattawa · Trois Rivières · Three Rivers · Montreal · Lockport · Rochester · Syracuse · Geneva · Cayuga L. · Ithaca · Binghamton · Corning · Elmira · Catskill · Hudson · Poughkeepsie · Newburgh · New Haven · New York

Great I. · Head waters of R. St. Maurice · R. Assumpmonsoni · Perthonemi R. · Saguenay R. · LAKE St. JOHN · L. Gatineau · L. Ottawa R. · GRAND · Quinze R. · Grand R. · Matawin L. · Temiscamingue L. · Kenogami L. · Kempt L. · L. Edward · RIVER St. MAURICE · Tamagaming L. · Keneewa L. · R. du Moine · L. NIPISSING · Ottawa R. · Gatineau R. · R. du Lievre · L'Assomption · Terre Bonne · L'Original · Montreal · Three Rivers · ST. LAWRENCE RIVER · L. St. Peter · R. St. Francis · Sorelle · St. Hyacinthe · St. Hilaire · Sherbrooke · St. John · Rouses Point · Burlington · Plattsburg · Ogdensburg · Brockville · Prescott · Morrisburg · Cornwall · Alexandria · Ottawa City · Pembroke · Mac Nab · Hull · Aylmer · Bytown · Rideau Canal · Rideau Falls · Perth · Carleton Place · Lanark · Almonte · Packenham · Arnprior · Renfrew · Bonnechere R. · Madawaska R. · Petawawa · Chats Falls · Deux Rivières · Mattawa · Trois Rivières · Three Rivers · Montreal · Lockport · Rochester · Syracuse · Geneva · Cayuga L. · Ithaca · Binghamton · Corning · Elmira · Catskill · Hudson · Poughkeepsie · Newburgh · New Haven · New York

Scale for Vicinity of Niagara R. 25 Statute M. to 1 inch.
0 5 10 15 20 25

Scale for Plans of Toronto Montreal & Quebec 10 Miles to 1 inch.
0 2 4 6 8 10

EXPLANATION
Capitals ⊙ HALIFAX
Important Places ⊙ St. John
Rail Roads
Battle Grounds

VICINITY OF NIAGARA RIVER.
Hamilton · Lake Ontario · Niagara · Port Dalhousie · Youngstown · Lewiston · Grimsby · St. Catherines · Queenston · Twenty Mile Creek · York · Lundys Lane · Fort Robinson · Chippewa · Welland R. · Welland Canal · Dunnville · Marsh V. · Waterloo · Buffalo · Port Maitland · Port Colborne · Lake Erie

VICINITY OF TORONTO
Humber · Hogs Hollow · Scarborough · Weston · York · Yorkville · Etobicoke · Toronto · Gibraltar Pt. · Lake Ontario

VICINITY OF MONTREAL.
Sault au Recollet · St. Francis · Boucherville · Isle Jesus · St. Laurent · Island of Montreal · County of St. Henry · Longueuil · St. Helens I. · Upper St. Lambert · Up. La Chine · La Prairie · Caughnawaga · Lake St. Louis

VICINITY OF QUEBEC
St. Pierre · Beauport · Falls of Montmorency · Ile of Orleans · St. Ambroise · Charlesbourg · St. Laurent · Lorette · Quebec · St. Foy · Heights of Abraham · Beauport · Beauport Flats · Point Levi · St. Augustine · Vincennes · Bellechasse · Montmagny

Corkerwetchepe Bay · North West R. · Black Bay · LABRADOR · C. Charles · Belle Isle · C. Bauld · ATLANTIC OCEAN · Mecattina B. · St. Johns B. · St. Marys B. · Cape Whittle · Natashquan Point · Mingan Islands · Anticosti Channel · The Seven Is. · West Point · ANTICOSTI · Pte. des Monts · South West Pt. · Manicouagan Pt. · C. Chatte · C. Magdelaine · South Pt. · East Point · C. Gaspe · Gaspe Bay · Mal Bay · Perce · C. D'Espoir · Mitis · L. Matapediac · Rimouski · Tadousac · Riviere du Loup · Dalhousie · Carraquette · Bathurst · Tracadie · Madawaska · Kamouraska · Baie St. Paul · L'Islet · Montmagny · St. Michel · St. Joseph · Lotbiniere · Somerset · Arthabaska · Richmond · Sherbrooke · Upton · Granby · Stanstead · Chambly · Plattsburg · Burlington · Middlebury · Rutland · Saratoga · Bennington · Bay of Chaleurs · Bonaventure I. · Percé · Miscou I. · Shippegan I. · Bonne Bay · BAY or ISLANDS · Bay of Islands · R. of Exploits · L. Victoria · L. Gander · Cape Freels · Fogo I. · Hamiltons Sound · Barrow L. · C. Bonavista · Cape St. George · St. GEORGES BAY · C. Anguille · Grindstone I. · Wolf I. · MAGDALEN · Bright I. · Amherst I. · St. Pauls I. · Cape North · Miquelon · Langley I. · Ste. Pierre I. · ST. JOHNS · Placentia · Ferryland · St. Mary · Cape Race · PLACENTIA BAY · St. Mary's · BANK OF ST. PIERRE · GREEN BANK · BANK OF NEWFOUNDLAND · MIZZEN BANK · BANQUEREAU BANK · Sable Island · SABLE ISLAND BANK · Cape Sable · Shelburne · Liverpool · Yarmouth · Lunenburg · Annapolis · Digby · Windsor · Sackville · Truro · Pictou · Amherst · Shediac · Dorchester · Hopewell · Magerville · Woodstock · Fredericton · Gagetown · Kingston · St. John · St. Andrews · Passamaquoddy · Eastport · Belfast · Bangor · Augusta · Portland · Biddeford · Portsmouth · Concord · Manchester · Merrimac R. · Thomaston · Middlebury · Montpelier · White Mts. · Burlington · Plattsburg · Saratoga · Bennington · Boston · C. Ann · Cape Breton · Sydney · Arichat · Louisburg · Port Hood · Bras d'Or L. · Coal Mines · Cape Breton · Georgetown · Pictou · Charlottetown · Prince Edward I. · Tignecto · Chignecto · Shediac · Dorchester · Hopewell · Magerville · Woodstock · Fredericton · Gagetown · Kingston · St. John · St. Andrews · Passamaquoddy · Eastport · Belfast · Bangor · Augusta · Portland · Biddeford · Portsmouth · Concord · Manchester · Merrimac R. · Thomaston · Middlebury · Montpelier · White Mts. · Burlington · Plattsburg · Saratoga · Bennington · Boston · C. Ann

1/7,247,550 of Nature

BRITISH PROVINCES

EASTERN PORTION.

100 Geographical or 115.26 Statute Miles, to one inch.

Entered according to Act of Congress, in the Year 1858 by J. H. Colton & Co. in the Clerks Office of the District Court of the United States, for the Southern District of New York.

now comprising the most populous portion of the United States, and containing an area of 865,576 square miles, thus making the ancient dominion of that nation in North America 3,743,914 square miles, or almost half the area of this section of America. Besides this the British had until 1846 the right of joint occupancy over the country now forming the territories of Oregon and Washington; and has at this day a right by lease to hunt over the continental portion of the Russian territories. Truly has Britain been the mother of the greatest nations of the Western World, and the means, in the hands of Providence, to lay the foundation of their civilization, their liberties, and their material progress and prosperity.

HUDSON'S BAY COMPANY'S TERRITORIES.

4. Hudson's Bay Company's Territories comprise all British America north and west of Canada, and extend over an area computed at 2,436,000 square miles. The Rocky Mountains, or, as they are here called, the Chippewyan Mountains, divide them into two grand physical sections.

5. The eastern section is a comparatively sterile region, and comprises four subordinate regions. The first of these lies east of Hudson's Bay, extending as far as the Strait of Belle Isle, and includes the whole of Labrador.* That portion of it which lies west of Hudson's Bay is called the "Barren Lands." The reindeer and musk-ox are here abundant, but fur-bearing animals are scarce. The inhabitants are chiefly Esquimaux. The second region extends on both shores of James' Bay, and along the southwestern shores of Hudson's Bay as far west as Cape Churchill, and inland to the ridge which forms the northern boundary of Canada, and to the lakes Superior, Winnipeg, Deer, and Wollaston. Along the shores and for several miles inland it is mostly occupied by swampy tracts, which are separated by comparatively narrow and dry but low ridges. Farther inland the country is well wooded, and produces fur-bearing animals in great abundance. To the west of the wood region is the third or prairie region, which extends to the foot of the Rocky Mountains, and northward to Lake Athabasca and Peace River. Its surface stretches out in extensive plains, intersected only by the beds of its several rivers, which are considerably below the general level. In the bottoms trees grow luxuriantly. The soil of the plains is rather sandy, and entirely bare of wood, but supports a thick grassy sward, on which buffalo and deer find abundant pasture. The fourth region is the valley of the Mackenzie. It comprehends the country between the sterile region and the mountains north of Lake Athabasca. The river generally runs through a bottom rarely more than a few miles wide, the alluvial soil of which is in many places covered with trees of moderate height. Its delta, which is 90 miles in length and from 15 to 40 in width, is formed by flat alluvial islands, which divide the various branches of the river.



THE BEAVER.

6. Hudson's Bay, the most prominent feature of the eastern section, is an extensive mediterranean sea, connected with the Atlantic by Hudson's Strait, and covering a larger surface than any inland sea of the old continent, the Mediterranean only excepted. Its southern part is called James' Bay, from which to Repulse Bay, in the north, the distance is upward of 1,000 miles, and it is more than 500 miles across in its widest part. The coasts, except in the southwest, are high, rocky, and rugged, and in localities precipitous. The depth in the middle of the bay has been taken at 150 fathoms. The northern part is occupied by Southampton Island, which is formed of high rocky masses, and appears to consist of numerous smaller islands separated by straits; which, however, are always closed by ice.

7. Numerous large rivers traverse this extensive country. The most important of those east of Hudson's Bay are Great Whale, East Main, Rupert, and Hurricannane rivers. Most of the rivers on the east, like those on the south and west, issue from or in some part of their course expand into lakes. Two very important rivers, on account of their situation, are the Moose and its affluent the Abbitibbe. Both issue from lakes on the high grounds separating Canada from these territories, and at no great distance from the upper branches of the Ottawa, and they are accordingly used as the most convenient means of communication between the two countries.

8. Between the mouth of the Moose and Cape Churchill are the embouchures of the Albany, Severn, Hayes, and Nelson. The Nelson is only inferior to the Mackenzie, and has its remote sources in the Rocky Mountains. Lake Winnipeg is about 240 miles long and from 5 to 50 wide. Westward of it are the two lakes Winnipegoos and Manitoba, which together occupy in length nearly the same extent as that lake. All these are united by rivers, and finally discharge through the Nelson into Hudson's Bay. The Saskatchawan and its branches are considered as the head stream of this great river. Lake Winnipeg also receives the Red River of the North. The Churchill River, called in its upper course Missinnippi and English River, rises in Methy Lake, nearly 500 miles in a direct line from its entrance into Hudson's Bay. In its course it forms several lakes.

9. The largest river of the country, however, is the Mackenzie. Its most southern branch is the Athabasca, which rises in the eastern declivity of Mount Brown, and falls into the western portion of Athabasca Lake. Peace River rises on the western side of the eastern range of the Rocky Mountains, within 300 yards of Frazer River, which falls into the Pacific. Within the mountains it is a large stream navigable for boats, and thence flowing through the plains unites with Slave River, the outlet of Lake Athabasca, which flows first north and then north-by-west to Great Slave Lake. This lake covers an area of 12,000 square miles; and the river issuing from the northwest corner now takes the name of Mackenzie. Near 62° it receives Mountain River, and near 65° Great Bear Lake River, which brings down the surplus waters of the lake so called, the area of which is about 8,000 square miles. The width of the river is generally about three miles, but in a few places is narrowed by rocky hills; including the Athabasca branch, it traverses fifteen degrees of latitude, and its whole course has been estimated at 2,000 miles. Coppermine River rises on the western border of the Barren Lands, and finds its way to the Arctic Ocean in a course of 200 miles. Back River, to the east of the Coppermine, is a still larger river.

10. The western section of the company's territories comprises all the country lying west of the Rocky Mountains, which here form two nearly parallel ranges, from 80 to 100 miles apart. The western range is much the lower, while the eastern has some summits which attain an elevation of from 15,000 to 16,000 feet above the sea-level. Mt. Hooker is 15,700 feet high, and Mt. Brown 15,990 feet. Several rivers rise between the two ranges. Frazer River has its sources in the western range, runs southward about 500 miles, and falls into the Strait of San Juan de Fuca. Its course is impetuous, but the river is navigable for canoes except where interrupted by rapids.

11. Along the coast the country is mountainous, and opposite Vancouver Island this mountainous character is maintained over a width of about 80 miles, and the declivities reach the shores of Queen Charlotte's Sound, which separates Vancouver Island from the continent. Farther north the mountain groups are more isolated, the breaks being occupied by valleys and inlets, through which numerous streams discharge their abundant waters. The shores are generally high, and rise with a steep ascent. Vegetation is vigorous in all the valleys, and the climate moist and equable. Farther inland, and to the declivities of the mountains, the country is an uneven plain, crossed by rocky ridges. The climate is still moderate, and forests cover nearly the whole surface. Fur-bearing animals are very numerous, especially beavers and otters, and the moose is also abundant. Seals are very common along the whole coast, and fish abound in the rivers. The principal islands off the coast are Vancouver and Queen Charlotte or Washington, with numerous others of smaller size. The coast and islands north of 54° 40′ belong to Russia.



WHITE BEARS AND SEALS.

12. All these countries are very sparsely populated, the latest estimate of the inhabitants of all races being only 100,000. These consist principally of Esquimaux, which live on the northern and eastern coasts, and Indians, living in small bands over the country, and subsisting on the produce of the chase. The white population is estimated at 4,000 to 5,000, chiefly agents of the company or their employees. These are mostly Scotchmen. The settlement of Assiniboin, on the Red River, numbers about 6,000 souls, about four fifths being half breeds. On Vancouver Island there is another settlement, numbering perhaps 1,200 or 1,500. Otherwise the whites are employed at the various forts or factories scattered over the country, and at which the Indian trade is carried on.

13. The Hudson's Bay Company consists of 237 proprietors, representing a stock of £400,000 sterling. Its affairs are managed by a governor, deputy governor, and committee of seven, elected by the proprietors holding not less than £900 stock for six months previous to voting, except such stock be acquired by bequest, marriage, etc. Each member of the committee must hold not less than £1,800 stock. The districts in America are each in charge of a governor, and such governor and his council has power to judge all persons belonging to the company or that shall live under him in all cases, whether civil or criminal, within his district. The business at the several stations is superintended by officers called chief factors, of which there are twenty-five, and the Indian trade is carried on by chief traders, of which there are twenty-eight. The clerks serve under both, and have salaries varying from £20 to £100 a year. The expenses of the establishments in England and America are paid out of the trade; but no expense relating to colonization or to any business separate from trade forms a charge on the concern. Profits are divided into 100 shares, of which 40 are divided to the chief factors and chief traders. Sales of furs and peltry are made at public auction several times each year at the Hudson's Bay House in Fenchurch Street, London.

14. Labrador was first discovered by John Cabot in 1497, and it is probable that his son, Sebastian, entered and partly surveyed Hudson's Bay in 1512. It was re-discovered by John Hudson in 1610. Meanwhile the French had colonized Canada, and thence carried on an active fur trade with the Indians inhabiting the countries west of Hudson's Bay. In 1668 Prince Rupert sent a vessel, the party on board of which erected Fort Charles, on the bank of Rupert River, in James' Bay.

15. The Hudson's Bay Company was incorporated by Charles II., by charter dated 2d May, 1670; and from that date to 1783 it enjoyed the sole benefit of the trade within the territories included within its charter. In the latter year another company, called the North-west Company, was organized, by parties who considered that the trade should be open to all British subjects alike. The jealousy and hostility which arose between the agents of the two companies impeded the operations of both parties for a series of years; and so serious had become the difficulty, that it was found politic to merge the two into a single company. This was effected in 1821, and at the same time a grant of exclusive trade over the territories northwest of the country covered by the original charter, as far west as the Rocky Mountains, was obtained from the crown. In 1838 a similar right for twenty-one years was granted over the territories west of the mountains to the Pacific.

16. The concessions of 1821 and 1838 were not, as the land included in the original charter, granted in perpetuity and succession. They may relapse to the crown, or in whole or part become open colonies whenever deemed advisable. Indeed, by the charter of 1838, the company is specifically enjoined to settle a colony on Vancouver Island, which has already been

* For the purposes of civil government Labrador is attached to Newfoundland.

partially effected; and it is not improbable that, on the consummation of the later leases in 1859, Canada may demand an extension of territory into the fine prairie country westward of her present limits.

PROVINCE OF CANADA.

1. Canada, lying almost wholly within the basin of the St. Lawrence, is included between latitudes 41° 47′ and 52° 40′ north, and longitudes 61° 54′ and 90° 20′ west of Greenwich. On the north it is bounded by the ridge or watershed which separates the waters flowing to the St. Lawrence and Hudson's Bay respectively; on the east and southeast by Labrador, the Gulf of St. Lawrence, the province of New Brunswick, and the states of Maine, New Hampshire, and Vermont; on the south by the State of New York, the St. Lawrence River, and the lakes Ontario, Erie, Huron, and Superior; and on the west by the river Kiministiquia,



HORSE-SHOE FALLS—NIAGARA.

which flows into Lake Superior opposite Isle Royale. The extreme length of Canada, east and west, is about 1,300 miles; the breadth varies from 80 to 300 miles, narrowing from the center to both extremities, and averaging 200 miles. The area is computed at 357,822 square miles—that of Canada West or Upper Canada being 147,832, and that of Canada East or Lower Canada being 209,990 square miles.

2. The great natural features of Canada are the river St. Lawrence, and the chain of lakes from which it descends. Four of these lakes, Ontario, Erie, Huron, and Superior, have a large portion of their shores situated within the limits of this Province: Lake Michigan is wholly within the territory of the United States.

3. In its course between Lake Ontario and the city of Quebec, the St. Lawrence spreads out in several places into lakes of some magnitude. The first of these, immediately below Lake Ontario, is known as the Lake of the Thousand Isles, from the immense number of islets with which it is studded. Lower down its course are the lakes of St. Francis, St. Louis, and St. Peter, the last named of which is about nine miles in width. At Quebec the river is not more than three fourths of a mile wide; but below this point it continually increases in breadth, and expands into a broad estuary before reaching the Gulf of St. Lawrence.

4. At the mouth of the St. Lawrence is the large island of Anticosti, which is 125 miles long, and 30 miles wide. It is low and swampy on the south side, and high, rocky, and barren on the north. It is only inhabited by a few families placed there for the purpose of affording assistance to the crews of vessels which have suffered shipwreck in the neighborhood of its shores. For the purposes of government this island is included in the colony of Newfoundland. The Magdalen Islands belong to Canada, and are much visited by fishing vessels.



FALLS OF MONTMORENCI—8 MILES BELOW QUEBEC.

5. The St. Lawrence is navigable for vessels of 600 tons as far as Montreal (580 miles above the Gulf). Within the past few years, however, extensive works have been constructed for the improvement of the navigation between Montreal and Lake Ontario, in which portion of its course the river is naturally much obstructed by rocks. By the aid of locks, combined with short lateral cuts and canals, for the avoidance of the principal rapids, vessels of considerable size are enabled to pass to and from Lake Ontario nearly along the direct line of the river.

6. The principal tributaries of the St. Lawrence are the rivers Ottawa, St. Maurice, and Saguenay upon the north bank, and the Chambly or Richelieu, St. Francis, and Chaudiere upon the southern. The Ottawa, which issues from Lake Temiscaming, and flows in a southeasterly direction to the St. Lawrence, contains numerous falls and rapids, and, like the St. Lawrence, expands in some places into lakes. By the help of artificial means, its lower course is rendered navigable, and has been connected with Lake Ontario by the Rideau Canal. The Saguenay, which issues from Lake St. John, has a rapid current, and pours an astonishing mass of turbid water into the stream of the St. Lawrence. The Chambly or Richelieu issues from Lake Champlain, a long and narrow body of water within the United States' frontier. It is navigable for decked vessels to a distance of 12 or 14 miles from its mouth, and, up to Lake Champlain, for boats and canoes.

7. The country which extends beyond the immediate banks of the St. Lawrence, upon either side, consists of a succession of plains, terraces, and elevated platforms or table-lands. But the height is nowhere considerable, and rarely exceeds from 700 to 800 feet. From the junction of the Ottawa downward to a considerable distance below the mouth of the St. Maurice, the banks are low, or only of moderate elevation, and this low country continues for some distance inland; but toward Quebec the shores assume a bold and steep aspect, and, except at occasional intervals, preserve this character to the great gulf.

8. Upon the south side of the St. Lawrence the country which extends over the lower course of the river St. Francis forms a level plain, one of the most fertile and best cultivated tracts in the Province. The country lying on the northern bank above the junction of the Ottawa is only of moderate elevation: it contains numerous small lakes and some extensive marshes; but the soil is in general fertile. Farther to the westward, a narrow plain extends along the shores of Lake Ontario, but the country rises, toward the north, into a plateau of considerable elevation. This plateau attains a height of 750 feet above the level of Lake Huron (or 1,344 feet above the sea) where it approaches that body of water.

9. The peninsular portion of Canada, which is inclosed by lakes Huron and Erie, with the western extremity of Lake Ontario, is a level or slightly undulating plain, the whole of which possesses an alluvial soil of great fertility. This is one of the finest districts of Canada, and is rapidly being filled up with an industrious population and increasing in importance. It is watered by numerous rivers, the two most important of which are the Ouse or Grand, which flows to the southeastward into Lake Erie, and the Thames, which runs in a southwesterly direction, and enters the Lake of St. Clair, midway between the channel which unites lakes Huron and Erie. Both these rivers are navigable for small schooners in their lower courses, and for boats almost through their whole courses.

10. The river Niagara, which connects lakes Erie and Ontario, is precipitated, in its midcourse, down the stupendous falls of the same name; but a navigable communication between the two lakes is effected by means of the Welland Canal, to the westward of the river, which admits vessels of 450 tons burden. A short canal also connects the waters of lakes Superior and Huron, overcoming the Sault Ste Marie.

11. The country lying to the northward of lakes Huron and Superior forms a table-land of considerable elevation, upon the surface of which are numerous lakes and small rivers. This tract contains few permanent settlements, but is signally noted as one of the richest mineral districts in the world; and which, in the course of events, must ultimately become the scene of a vast industrial development. To the westward of this extreme limit of the Province there is an immense and fertile region with a moderate climate, and now almost unoccupied. At present it is within the limits of the Hudson's Bay Company's territory.

12. The climate of Canada is much colder than that of Europe on the same parallels. It is nearly the same with the climates of Norway, Sweden, Russia, and the south parts of Iceland. Both the heat of summer and the cold of winter are extreme—the thermometer ranging between 102° above, and 36° below zero. But in the districts adjoining the great lakes the climate is milder and more equable than that of places more remote. The prevailing winds are northeast, northwest, and southwest—the last the most frequent. The azure of the sky is remarkable, and fogs are almost unknown. In Lower Canada the winter commences at the end of November, and lasts to the end of April—during this period the frosts are intense. In Upper Canada the winter is much shorter. The average depth of snow that falls in the season is about 30 inches. The winters of Quebec are six weeks longer than in the west. Up to the 50th parallel north the country is exceedingly well adapted to wheat-growing, which matures rapidly under the influence of an intense summer.



SLEIGHING SCENE, QUEBEC.

13. The mineral resources of Canada are very great, but have, until lately, been almost entirely neglected. Iron is abundant in all parts of the Province, particularly in the neighborhood of lakes Erie and Ontario, as well as in Lower Canada, and to the northward of the river Saguenay. Plumbago, and ores of antimony, lead, and copper are also found. Copper is abundant in the tract to the north of Lake Superior, and its production is now considerable. Gold, silver, and tin have also been met with in the same region. The northern and western shores of Lake Ontario abound in salt-springs, and the north shores of Lake Erie exhibit immense beds of gypsum, some of which is quarried for agricultural purposes. Various kinds of marble, with serpentine, granite, and other igneous rocks are abundant, and lithographic stone has been found in the town of Marmora.

14. But the productions of the forest are the most characteristic wealth of Canada. The variety of trees is astonishing—among the most common are pines and firs, with the maple, white cedar, birch, ash, oak, beech, elm, hazel, cherry, cypress, poplar, willow, and sycamore. One of the most useful is the maple, from the sap of which excellent sugar is made. Trees not available for timber serve to supply the pot and pearlash manufactories.

15. Wild animals, including the moose-deer, bear, wolf, wild-cat, fox, lynx, and others, are numerous, but are gradually disappearing before the increasing population and advancing extent of the settled portions of the Province. The beaver, which was formerly very abundant, is now seldom found within reach of the settlements. Two species of rattlesnake occur, but these are not numerous. Fish abound in all the rivers and lakes, and include the sturgeon, pike, trout, and a species of fresh-water herring. Salmon are plentiful in Lake Ontario, but are not found above the falls of Niagara. Seals are numerous in the lower portion of the St. Lawrence, and in the gulf of the same name there are valuable fisheries.

16. For civil purposes Canada is divided into two districts, formerly called Upper and Lower, but now West and East. In 1851 the former was divided into 42 counties, and the latter into 36 counties, as follows:

UPPER CANADA OR CANADA WEST.

Counties.	Area, sq. m.	Population.	Chief Towns.
Addington	576	15,165	Bath.
Brant	416	25,426	Brantford.
Bruce	992	2,837	Penatangore.
Carleton	898	31,397	Ottawa C. (*Bytown*).
Durham	620	30,732	Port Hope.
Dundas	377	13,811	Morrisburg.
Elgin	703	25,418	St. Thomas.
Essex	677	16,817	Sandwich.
Frontenac	1,342	30,735	Kingston.
Glengary	450	17,596	Alexandria.
Grey	2,321	13,217	Sydenham.
Grenville	421	20,707	Prescott.
Haldimand	459	18,788	Cayuga.
Halton	362	18,322	Milton.
Hastings	1,324	31,977	Belleville.
Huron	1,392	19,198	Goderich.
Kent	870	17,469	Chatham.
Lambton	1,093	10,815	Port Sarnia.
Lanark	1,180	27,317	Perth.
Leeds	805	30,280	Brockville.
Lenox	170	7,955	Napanee.
Lincoln	306	23,863	Niagara.
Middlesex	1,079	39,899	London.
Northumberland	730	31,229	Cobourg.
Norfolk	600	21,281	Simcoe.
Ontario	851	30,576	Whitby.
Oxford	710	32,638	Woodstock.
Peel	458	24,816	Brampton.
Perth	698	15,545	Stratford.
Peterboro'	1,005	15,287	Peterboro'.
Prescott	475	10,487	L'Original.
Prince Edward	334	18,887	Picton.
Renfrew	1,133	9,415	M'Nab.
Russell	379	2,870	Cumberland.
Simcoe	1,797	27,165	Barrie.
Stormont	391	14,643	Cornwall.
Victoria	749	11,657	Lindsay.
Waterloo	518	26,537	Berlin.
Wellington	1,287	26,796	Guelph.
Welland	356	20,141	Merrittsville.
Wentworth	426	42,619	Hamilton.
York	808	79,719	Toronto.
Total	32,492	952,004	

LOWER CANADA OR CANADA EAST.*

Counties.	Area, sq. m.	Population.	Chief Towns.
Beauharnois	717	40,213	Beauharnois.
Bellechasse	1,188	17,982	Berthier *en bas.*
Bonaventure	4,560	10,944	Carleton.
Chambly	211	20,576	St. John's.
Champlain	6,200	13,896	Batiscan.
Dorchester	2,050	43,105	Beauce.
Drummond	1,644	16,562	Drummondville.
Gaspé	4,053	10,904	Gaspé.
Huntingdon	488	40,645	Laprairie.
Kamouraska	1,090	20,396	Kamouraska.
Leinster	6,090	29,690	L'Assomption.
L'Islet	1,220	19,641	Montmagny.
Lotbinière	735	16,657	Lotbinière.
Megantic	1,465	13,835	Leeds
Missisquoi	860	13,484	Philipsburg.
Montmorency	7,465	9,593	Chateau Richer.
Montreal	197	77,381	Montreal.
Nicolet	487	9,657	Nicolet.
Ottawa	35,100	22,903	Aylmer.
Portneuf	10,446	19,366	Portneuf.
Quebec	16,040	61,526	Quebec.
Richelieu	873	25,686	Sorel.
Rouville	429	27,031	Clarenceville.
Rimouski	8,900	26,882	Rimouski.
Saguenay	75,000	20,783	Eboulements.
St. Maurice	7,300	27,562	Three Rivers.
St. Hyacinthe	477	30,623	St. Hyacinthe.
Sherbrooke	2,785	21,014	Sherbrooke.
Shefford	749	16,482	Granby.
Stanstead	632	13,898	Stanstead.
Terrebonne	545	26,791	Terrebonne.
Two Mountains	1,404	30,470	St. Eustache.
Vaudreuil	330	21,429	Vaudreuil.
Verchères	198	14,393	Verchères.
Yamaska	238	14,748	Yamaska.
Total	209,990	890,261	
Canada West	32,492	952,004	
Grand Total	242,482	1,842,265	

17. Of the total population (in 1851) of Canada West 499,067 were males and 452,937 females, and of Canada East 449,967 were males and 440,294 females; and the physical and social condition of the inhabitants in the two districts was as follows:

Condition.	Canada West. Males.	Canada West. Females.	Canada West. Total.	Canada East. Males.	Canada East. Females.	Canada East. Total.
Indians	2,713	2,495	5,208	1,803	1,717	3,520
Colored persons	2,502	2,167	4,669	884	359	743
Deaf and dumb	289	189	478	514	351	865
Blind	185	131	316	308	246	554
Lunatics	519	550	1,069	891	842	1,733
Single	342,321	293,773	636,094	303,799	289,494	593,293
Married	147,872	143,506	291,378	136,999	135,421	272,420
Widowed	8,742	15,528	24,270	8,677	44,908	23,585
Attending school	88,706	68,880	152,586	72,679	48,372	121,051

18. The origin of the population in the two districts is essentially different. In the eastern and older settled portions of the province nearly three fourths of the inhabitants are of French descent, whereas in the western or more recently settled portions the population is composed of emigrants from the British Isles and their descendants. The annexed table exhibits the national origin of the great body of the people:

	England and Wales.	Scotland.	Ireland.	Canada (French).	Canada (not French).	U. States.
Canada West	82,699	75,811	176,267	26,417	526,093	43,732
Canada East	11,230	14,565	51,499	669,528	125,580	12,482

—the remainder originating from various parts of Europe, the lower provinces, the West and East Indies, etc. All countries have contributed to the population of Canada. These, in Canada West, constituted 154,502 families, occupying 145,956 dwellings, and in Canada East 142,763 families, occupying 123,983 dwellings.

19. The progress of population in the Province from period to period has been as set forth in the following table:

Canada West.				Canada East.			
1770	about 200	1832	261,060	1676	8,415	1825	423,630
1791	less than 50,000	1836	367,841	1688	11,249	1827	471,876
1806	70,718	1839	407,515	1700	about 15,000	1830	511,920
1811	about 77,000	1841	465,357	1706	" 20,000	1844	690,782
1824	151,097	1842	486,055	1714	26,904	1847	714,382
1826	163,703	1848	723,087	1759	about 65,000	1848	768,385
1830	235,164	1851	952,004	1784	" 113,000	1851	890,261

—the population at the end of 1856 was estimated—for Canada West at 1,350,923, and—for Canada East at 1,220,514.

20. The religious predilections of the people may be based upon their national origin, and as a general fact it may be assumed that in Canada East the adherents of the Roman Church predominate, while in Canada West the various Protestant denominations are in the ascendant. To illustrate this position, the census returns of 1851 need only to be referred to, which give the following returns:

Denominations.	Canada West. Churches.	Canada West. Adherents.	Canada East. Churches.	Canada East. Adherents.	Total. Churches.	Total. Adherents.
Church of England	223	223,190	116	45,402	344	268,592
Church of Rome	126	167,095	385	746,866	511	914,561
Church of Scotland	99	57,542	6	4,047	105	61,589
Presbyterian	187	146,606	52	29,488	239	176,094
Baptist	119	45,353	21	4,493	140	49,846
Methodist	403	59,585	52	11,935	455	71,520
Episcopal Methodist	84	43,884	1	7	85	43,891
New Connection Methodist	13	7,547	1	3,442	14	10,989
Quakers	12	7,460	1	163	13	7,623
Lutheran	19	12,089	—	18	19	12,107
Congregational	43	7,747	22	3,927	65	11,674
Bible Christian	38	5,726	—	16	38	5,742
Other sects	103	27,580	3	43,457	106	71,037
Total	1,474	952,004	660	890,261	2,134	1,842,265

21. The population of Canada, especially that of the western district, is constantly being augmented by immigration, chiefly from Great Britain and Ireland, but also from other European states. For the thirty years ending with 1856 the number of emigrants from Europe has averaged about 30,000, and within the last five years about 40,000 annually. Many families also remove from the United States and the lower provinces to Canada. The immigration and the natural increase for the past five years, added to the population of 1851, gave the population at the end of 1856 (as before shown—*see* § 19) at 2,571,437.

22. The Indian population of Canada included in the census returns embraces only such as have been incorporated into the body politic. In all, there are about 30,000 within the provincial limits, but their numbers are rapidly decreasing. They belong entirely to the two nations of the Ojibbeways and Mohawks (or Iroquois), and dwell in tracts bordering on the great lakes. A few have embraced Christianity and settled in villages, but the majority are hunters and have no fixed place of abode.

23. In an industrial point of view, Canada presents a rare example of what an intelligent people may accomplish. True it is that Canada is replete with every material resource; but it is to the hand of man that these owe their development. Without the laborer, agriculturist, and artisan the country must still have retained the wilderness condition in which the opening of the present century in reality found it. In the brief period since elapsed large populations, bringing with them the arts of civilization, have settled in the province, and by persistent industry made the land to yield abundantly, opened mines, built up factories and workshops, opened up the country by means of canals, railroads, etc., and initiated a commerce which is constantly and rapidly increasing in extent and value.

24. As yet, however, but a small portion of the land is occupied, and the clearance of the ground and the culture of the soil are the main employments of the settler. The total quantity of land held by individuals in 1851 was 17,939,796 acres, or only one in thirteen of the whole territory; and of this only 7,300,839 had been brought under cultivation. The condition of the land in the districts separately was as follows:

	Canada West.	Canada East.		Canada West.	Canada East.
Persons holding land	99,869	95,823	Acres of land held	9,826,417	8,113,379
Persons holding 10 acres and under	9,976	14,477	" " under cultivation	3,695,763	3,605,076
" " 10 to 20 acres	1,889	2,702	" " " crops	2,274,746	2,071,349
" " 20 to 50 "	18,467	17,521	" " " pasture	1,365,556	1,508,600
" " 50 to 100 "	48,027	37,863	" " " gardens, etc.	55,461	30,127
" " 100 to 200 "	18,421	18,639	" " wood or wild	6,130,654	4,508,303
" " over 200 "	3,080	4,591	Assessed value (£ currency)	36,670,890	29,208,158

25. The grains cultivated are wheat, barley, rye, oats, buckwheat, and Indian corn. Wheat and oats are the staples of the western portion of the Province, and oats in the eastern portion. The crops (in bushels) of 1850 were as follows:

	Wheat.	Rye.	Oats.	Buckwheat.	Barley.	Indian corn.
In Canada West	12,674,503	479,623	11,186,161	679,754	625,355	1,662,524
In Canada East	3,045,600	345,290	8,984,123	588,280	456,344	419,017
Total	15,720,103	824,913	20,170,284	1,268,034	1,081,699	2,081,541

The same crops in the United States compare with those of Canada (the populations of those countries being as 232 to 18 respectively) as follows:

100,485,944 ..... 14,188,813 ..... 146,584,179 ..... 8,956,912 ..... 5,167,015 592,071,104

which figures show distinctly that but one half the amount of wheat is grown in the United States *per capita* as in Canada; but that the great amount of Indian corn grown in the Union more than supplements the deficiency. The total grain produced for each mouth in the United States is about 37 bushels, and in Canada about 22 bushels. A great portion of the corn (the staple crop) in the former country, however, is fed to livestock.

26. The miscellaneous field and garden crops were as follows:

Crops.		Canada West.	Canada East.	Crops.		Canada West.	Canada East.
Peas	bushels	2,872,413	1,473,628	Mangel-wurzel	bushels	54,226	111,428
Beans	"	18,109	23,618	Hops	pounds	113,064	146,488
Potatoes	"	5,077,315	4,583,461	Hay	tons	681,782	727,763
Turnips	"	3,023,378	354,249	Flax and hemp	pounds	56,650	1,188,416
Clover and grass-seed	"	44,460	16,763	Tobacco	"	767,476	444,819
Carrots	"	174,895	100,820	Maple sugar	"	3,581,505	5,829,294

The potato crops throughout the Province are excellent and abundant; and all the vegetables of the temperate regions of the Old World grow with the greatest luxuriance. Tobacco, hemp, and flax are all successfully cultivated, and the two latter are indigenous. The fruits of Europe are also abundantly produced, especially in Canada West, where the peach and grape both come to perfection, as well as many of the fruits common to the warmer latitudes of the Eastern continent.

27. Canada, besides being a grain country, is also a large breeder and owner of cattle and other livestock. In this species of property it is much richer comparatively than the United States. In 1851 the numbers of each description of livestock were as follows:

	Bulls, Oxen, and Steers.	Milch Cows.	Calves and Heifers.	Horses and Mules.	Sheep.	Pigs.
Canada West	193,982	296,613	254,999	201,700	969,221	570,237
Canada East	112,127	297,500	182,691	185,343	649,523	256,587

The products of animals in 1851 were as follows:

	Wool, *lbs.*	Butter, *lbs.*	Cheese, *lbs.*	Beef, *bbls.*	Pork, *bbls.*
Canada West	2,698,764	15,976,313	2,226,776	113,912	310,058
Canada East	1,421,847	9,809,113	737,696	41,161	168,350

28. In manufactures very considerable progress has been made, and many of the products of her artisans have received favorable notice. Of all manufactures in timber the most im-

* Since 1851 Lower Canada has been re-divided into 59 counties, the population of which, as calculated from the census of that year, is as follows:

Counties.	*Population.*	*Chief Towns.*	*Counties.*	*Population.*	*Chief Towns.*	*Counties.*	*Population.*	*Chief Towns.*
Argenteuil	14,129	St. Placide.	Laprairie	14,054	Laprairie.	Richelieu	19,354	Sorel.
Arthabaska	6,539	Arthabaska.	L'Assomption	16,866	L'Assomption.	Rimouski	13,351	Rimouski.
Bagot	13,622	Upton.	Laval	11,053	Ile Jesus.	Rouville	16,531	St. Hilaire.
Beauce	15,597	Ste Marie.	Levi	15,855	St. Joseph.	Saguenay	13,041	Baie St. Paul.
Beauharnois	12,162	Beauharnois.	L'Islet	10,591	L'Islet.	St. Hyacinthe	17,348	St. Hyacinthe.
Bellechasse	12,094	St. Michel.	Lotbiniere	14,051	Lotbiniere.	St. John's	15,226	St. Jean.
Berthier	16,390	Berthier.	Maskinonge	13,415	Maskinonge.	St. Maurice	14,147	Three Rivers.
Bonaventure	10,853	Carlisle.	Megantic	15,357	Somerset.	Shefford	11,083	Granby.
Chambly	12,535	Chambly.	Missisquoi, West	15,205	Philipsburg.	Sherbrooke	6,640	Sherbrooke.
Champlain	13,896	Batiscan.	Missisquoi, East	15,357	Broome.	Soulanges	11,512	Coteau du Lac.
Chateauguay	17,354	Chateauguay.	Montcalm	12,824	St. Patrick.	Stanstead	10,255	Stanstead.
Chicoutimi	7,079	Chicoutimi.	Montmagny	11,945	Montmagny.	Tadousac	1,865	Tadousac.
Compton	7,463	Compton.	Montmorency	9,598	Chat. Richer.	Temiscouata	14,552	Riviere du Loup.
Dorchester	12,790	St. Anselm.	Montreal	78,381	Montreal.	Terrebonne	16,353	Ste Therese.
Drummond	9,025	Drummond.	Napierville	13,541	Sherrington.	Two Mountains	15,722	Ste Scholastique.
Gaspe	10,094	Perce.	Nicolet	18,957	Nicolet.	Vaudreuil	9,917	Vaudreuil.
Huntingdon	15,190	Huntingdon.	Ottawa	13,038	Aylmer.	Verchieres	14,165	Varennes.
Iberville	14,862	St. George.	Pontiac	9,865	Allumettes.	Wolf and Yamaska	2,235	—
Jolliette	16,218	Jolliette.	Portneuf	19,951	Cap Sante.		14,748	La Baie.
Kamouraska	19,375	Kamouraska.	Quebec	60,941	Quebec.			

portant is that of ship-building, which is chiefly carried on at Quebec; and from thence a large number of vessels are exported. The manufactures of iron and copper are also becoming extensive and varied, and from the abundance of these two metals within its territory, Canada may ultimately rise to eminence in this branch of her industry. Already she manufactures railroad locomotives and every variety of castings, with land and marine steam-engines and fittings for all kinds of machinery; railroad cars and wagons; and her pleasure carriages are not surpassed for elegance, durability, and finish. She makes edge-tools of every variety, agricultural machines and implements, cooking and ornamental stoves, printing types, philosophical and surgical instruments, etc.; and in the manufacture of piano-fortes and other musical instruments she competes creditably with any other country. In cotton fabrics Canada has made but little progress; but in woolen goods and mixed fabrics she is a large producer. Passing over other less important manufactures, there remain the grist and saw



NIAGARA SUSPENSION BRIDGE.

mills, which minister to the first wants of the immigrant and produce the staple exports of the Province. Of the latter, especially those on the Ottawa and Saguenay, Canada has perhaps the largest in the world. In Canada also, as in all new countries, a large amount of home-made manufactures, as flannel, woolen cloth, etc., is produced.

29. The public works of Canada comprise numerous harbor and river improvements, bridges, canals, railroads, etc. The canals have been constructed chiefly to overcome the falls and rapids of the rivers, and have thus become the highways of a vast internal commerce. The railroads completed or projected extend from one end of the country to the other, with branch lines to the interior and to the ports on the water fronts. These also connect at several points with the railroads of the United States, and form continuous routes to the sea-board and between the Eastern and Western States, or between the producing and manufacturing regions of the Union. In this respect Canada West may be considered a stepping-stone between the two.

30. The canals of Canada are most stupendous achievements, and are as important as magnificent. The elevation from tide-water to Lake Ontario (more than 231 feet) is overcome by seven canals of various lengths (from 1 to 12 miles, but in all not more than 41 miles, and having locks 200 feet long and 45 feet wide); and varying from 100 to 140 feet on the water surface, with a depth of 10 feet. From Lake Ontario to Lake Erie (333 feet) the elevation is surmounted by the Welland Canal, 28 miles in length, with 27 cut-stone locks, 150 feet long and 26½ feet wide. The Rideau Canal, extending from Lake Ontario, at Kingston,



VICTORIA BRIDGE, AT MONTREAL.

to the Ottawa, at Ottawa City, is 135 miles long, and has capacity for vessels of 120 tons burden; and the navigation of the St. Lawrence and Lake Champlain is connected by the Chambly Canal.

31. The following is an enumeration of the several railroads of the Province in 1858, exhibiting the length of each in miles:

Railroads.	Total Length.	Length Opened.
Brockville and Ottawa	120	70
Perth Branch	10½	10½
Buffalo and Lake Huron	158	117
Carillon and Grenville	12½	12½
Champlain and St. Law.	44	44
Galt and Guelph	112	16
Berlin Branch	11	11
Grand Trunk:		
—Montreal Division.	143	143
—Quebec "	96	96
—Eastern "	145	41
—Toronto "	333	333
—Stratford "	88	88
—Sarnia "	75	0
Great Western:		
—Main Line	186	186
—Toronto Division	38	38
—Niagara "	43	43
—Galt Branch	12	12
—Sarnia Division	60	0
Great Southern	225	0
Hamilton and Pt. Dover.	40½	0
Industry Village	12	12
London and Port Stanley	24	24
Montreal and Lachine	8	8
Montreal and New York	37	37
Cobourg and Peterboro'.	28½	28½
Erie and Ontario	25	17
Montreal and Ottawa	87	0
Montreal and Stanstead	106	0
North Shore	154	0
Ontario, Simcoe & Huron	96	96
Ottawa and Prescott	54	54
Peterboro' and Port Hope	27	27
P. Dalhousie and Thorold	9	5
Port Hope, Lindsay and Beaverton	74½	42½
Rawdon and Industry	16	16
Welland	20	20
Woodstock and L. Erie	149	0
Total	2,879½	1,648

—connected with the Canadian railroads are several of the most magnificent bridges in the world. Among these may be mentioned the Suspension Bridge, over the Niagara River; the Tubular (Victoria) Bridge, over the St. Lawrence, at Montreal, and the great bridges over the Chaudiere and Ottawa rivers.

32. As a commercial country, Canada ranks among the first. Its natural and artificial means of transport are not excelled by those of any other country, and over these a rich traffic is constantly being carried. Its foreign commerce has increased immensely under the influence of its canals and railroads, and the wise policy of reciprocity with the United States recently adopted. The statistics of the foreign trade for the years 1850–1857 show the progress made in this branch of the national industry in the past eight years.

33. The following table shows the character, ports of shipment, destination, and value (currency) of the exports for the years 1850–1857 both inclusive:

	1850.	1851.	1852.	1853.	1854.	1855.	1856.	1857.
Products of the mines	£9,145	£21,689	£8,394	£27,339	£74,781	£81,458	£41,412	£71,617
" of the sea	36,513	62,324	74,462	85,001	87,428	114,981	114,086	135,028
" of the forest	1,360,734	1,515,879	1,644,585	2,355,255	2,495,842	1,986,981	2,504,971	2,932,597
Animals and animal prod.	157,580	219,559	295,929	342,631	208,818	398,796	641,015	526,810
Vegetable food and prod.	1,059,475	951,165	1,181,364	2,023,714	1,840,763	3,257,599	3,742,069	2,220,706
Manufactures	6,677	15,802	19,783	35,106	42,437	119,019	93,408	99,705
Miscellaneous merchandise	39,874	37,972	26,875	15,824	11,246	17,141	10,799	30,280
From 7 sea-ports*	£1,442,395	£1,767,275	£1,686,853	£2,646,524	£2,547,914	£1,844,708	£2,651,015	£3,093,335
From 78 inland ports	1,227,603	1,057,355	1,564,540	2,236,341	2,212,351	4,081,267	4,497,744	2,923,408
To United Kingdom	£1,200,850	£1,505,350	£1,426,614	£2,246,164	£2,167,116	£1,879,724	?	£2,429,640
" British West Indies	2,094	978	3,491	5,046	2,247	937	?	—
" British N. America	202,194	259,380	203,084	345,116	382,319	255,862	?	218,810
" United States	1,237,790	1,017,886	1,571,130	2,234,096	2,162,251	4,184,319	?	3,301,609
" Other for. countries	27,070	41,036	47,124	52,448	46,332	105,133	?	66,675
Apparent total value	£2,669,998	£2,824,630	£3,251,393	£4,882,870	£4,760,265	£5,925,975	£7,148,759	£6,016,743
Add for shipping built at Quebec and expt'd	320,430	416,550	262,600	620,187	552,042	304,886	303,269	345,861
Add for under-valuation at inland ports, 20 p. c.	245,520	211,471	312,908	447,268	442,470	816,254	559,725	389,051
Actual total value	£3,235,948	£3,452,651	£3,836,901	£5,950,325	£5,754,797	£7,047,115	£8,011,754	£6,751,656

34. And the following exhibits the sources and value of imports for the same years:

Years.	United Kingdom.	Brit. W. Indies.	Brit. N. America.	United States.	Other Countries.	Total.
1850	£2,407,980	£1,113	£96,405	£1,648,715	£91,304	£4,245,517
1851	3,012,033	3,406	109,243	2,091,441	142,574	5,358,697
1852	2,667,783	1,279	120,239	2,119,423	162,899	5,071,623
1853	4,622,280	870	158,165	2,945,537	268,507	7,995,359
1854	5,740,833	638	165,779	3,883,274	338,777	10,182,331
1855	3,325,865	3,534	216,497	5,206,358	269,288	9,021,542
1856	4,553,233	4,403	258,148	5,676,102	404,183	10,896,069
1857	4,389,756	6,706	187,972	5,056,163	217,052	9,857,649

—and annexed is a table showing the values, exported and imported at the principal ports:

		1850.	1851.	1852.	1853.	1854.	1855.	1856.	1857.
Quebec	Exp.	£1,297,523	£1,593,662	£1,361,019	£2,443,457	£2,511,767	£1,558,702	£2,048,298	£2,368,079
	Imp.	494,139	642,316	647,804	1,141,594	1,754,329	732,550	871,598	922,408
Montreal	Exp.	436,193	529,808	518,262	746,050	458,411	475,650	956,391	729,335
	Imp.	1,726,350	2,201,026	2,246,345	3,381,539	3,816,082	3,064,061	4,066,251	3,881,132
Toronto	Exp.	67,557	81,851	134,211	221,490	273,049	404,105	551,333	168,416
	Imp.	634,722	678,493	639,317	1,165,056	1,362,706	1,401,458	1,738,657	1,271,364
Hamilton	Exp.	88,922	91,312	122,517	206,719	148,122	454,586	446,376	286,386
	Imp.	395,782	506,487	590,326	886,377	1,276,599	1,241,257	1,350,006	923,272
Kingston	Exp.	87,562	83,046	69,381	96,249	96,570	93,802	121,386	91,652
	Imp.	124,760	151,531	169,832	212,348	276,397	494,342	572,146	713,116

35. The following is a statement of the shipping engaged in the foreign commerce of the Province *via* the St. Lawrence and the sea:

	CLEARANCES.			ENTRANCES.		
Years.	Vessels.	Tonnage.	Men.	Vessels.	Tonnage.	Men.
1850	1,587	543,963	19,116	1,500	522,116	18,466
1851	1,807	645,246	21,847	1,732	600,194	20,506
1852	1,567	578,059	19,673	1,729	564,242	22,803
1853	1,821	658,853	21,003	1,798	622,579	22,392
1854	2,018	781,755	26,286	1,890	705,842	24,401
1855	1,219	451,241	15,314	1,168	419,553	14,252
1856	1,532	573,648	19,880	1,494	550,573	18,976
1857	1,848	731,367	23,541	2,047	748,425	30,490

36. Previous to 1853 no official statement was published relative to the shipping employed in the coasting trade and the trade with the United States on the international lakes and rivers. The following are the returns from and including that date.

	Shipping Inward.				Shipping Outward.				Total
Years.	British.		American.		British.		American.		Steam and
	Steam.	Sailing.	Steam.	Sailing.	Steam.	Sailing.	Steam.	Sailing.	Sailing.
1853	2,175,241	350,761	1,102,239	193,748	2,070,117	355,194	1,006,392	216,620	7,470,312
1854	1,997,228	282,301	1,133,503	151,020	1,286,299	233,219	1,117,707	128,344	6,330,621
1855	3,160,181	385,359	2,372,632	191,978	3,091,596	367,181	2,347,384	181,233	12,097,394
1856	?	?	?	?	?	?	?	?	12,245,667
1857	1,670,052	387,654	2,217,777	260,061	1,628,322	355,745	2,212,770	216,552	8,948,933

37. The statistics of ship-building and of the shipping owned in the Province in each of the years are as follows:

	Vessels Built.						Shipping Owned.					
Years.	Steamers.		Sail Vessels.		Total.		Steamers.		Sail Vessels.		Total.	
	No.	Tons.	No.	Tons.	No.	Tons.	No.	Tons	No.	Tons.	No.	Tons.
1850	11	958	76	32,180	87	33,138	31	2,985	213	33,148	244	36,133
1851	4	450	77	42,649	81	43,099	12	1,066	159	26,630	171	27,697
1852	9	1,711	62	29,406	71	31,117	44	5,585	190	43,127	234	48,712
1853	2	674	136	58,396	138	59,070	16	2,144	268	68,137	284	70,281
1854	16	2,233	104	51,822	120	54,055	32	4,479	241	70,951	273	75,630
1855	24	3,268	113	39,703	137	42,971	52	8,028	214	54,122	266	62,175
1856	?	?	?	?	?	?	?	?	?	?	?	?
1857	16	2,556	110	44,380	126	46,936	52	9,385	262	61,920	304	71,305

—from two thirds to three fourths of all the shipping is built at Quebec.

* The recognized sea-ports are Quebec, Montreal, Gaspé, New Carlisle Amherst, Isle-Verte, and Rimouski.

38. The condition of the banks of Canada, of which there were in 1851 eight, and in 1856 eleven, is stated as follows:

1851 ....Capital £2,787,035....Circulation £1,623,435...Specie £413,420...Deposits £2,691,705...Discounts £5,574,280
1856 .... " 4,311,585.... " 2,627,969... " 552,733... " 2,412,581... " 8,076,799

—all these banks have agencies in the principal towns of the Province, in Great Britain and Ireland, and many of the commercial cities of France, Germany, and the United States.

39. The form of government in Canada is that of a limited sovereignty, and in many of its provisions a copy of that of the United Kingdom. The executive power is vested in a governor, (who is also governor-general of British North America) appointed by the crown, and assisted by a council of ministers. The members of the ministry, ten in number, are also heads of departments. The provincial parliament consists of a council of 47 members (formerly appointed for life, but now elective), and an assembly consisting of members elected from 127 districts (counties, ridings, and towns included), and now 132 in number. The franchise is nearly universal; an assessed interest of £50 in lands and a £2 freehold being the real estate qualification of voters, and £7 10*s.* in cities and towns and £5 in rural constituencies, the rental qualification. Every male of full age, being a subject of the British crown, by birth or naturalization, and possessing the above qualification, is entitled to vote at all elections. The forms of procedure in parliament are identical with those of the British legislature. Bills passed by both houses must receive the assent of the crown before they acquire the force of law, and this the governor is authorized to grant or to reserve bills for sanction or rejection by the imperial government. The judiciary is also organized on the same principles as that of England. By recent enactments of the imperial parliament the Canadian government has had conceded to it the management of its own administration, and has, in fact, become all but in name an independent state. The military protection of the Province is provided for by the imperial authorities.

40. The following table exhibits a statement of the provincial revenues and expenditures for the several years beginning with 1842 and ending with 1857:

Years.	Net Revenue.* Customs.	Excise.	Pub. Works.	Territorial.	Bank Impposts.	Casual.	Total.	Expenditures. Public Debt.	Total Expen.
1842	265,387	31,925	16,370	25,795	10,277	15,851	365,605	79,644	374,482
1843	218,984	30,525	26,076	27,223	7,601	10,628	320,987	96,355	292,949
1844	429,722	34,370	25,625	5,181	10,493	10,392	515,783	123,642	500,355
1845	419,001	20,278	27,501	22,871	13,021	21,694	524,866	143,733	523,453
1846	391,171	18,640	48,480	23,526	15,899	15,277	512,993	147,952	522,982
1847	381,063	28,821	42,557	25,758	16,006	12,621	506,826	151,145	480,217
1848	304,358	28,546	24,058	3,181	12,473	7,029	379,645	169,187	474,491
1849	412,627	21,182	42,615	9,569	10,763	16,725	513,431	182,728	477,067
1850	583,530	20,018	52,564	21,715	13,312	13,095	704,234	202,131	541,663
1851	703,701	20,181	65,009	19,961	15,882	17,500	842,184	225,350	647,177
1852	705,518	22,446	71,424	32,248	18,989	29,906	880,531	215,443	810,957
1853	986,598	22,523	77,640	64,148	23,054	21,211	1,195,173	227,384	777,414
1854	1,168,018	17,238	50,461	71,216	26,771	35,602	1,369,306	226,182	954 962
1855	813,819	16,761	36,242	76,330	22,459	53,448	1,019,059	219,471	1,111,464
1856	1,028,905	20,582	51,765	25,656	22,143	89,665	1,238,666	225,224	1,105,228
1857	898,938	26,972	34,655	34,556	18,845	56,297	1,070,263	281,036	1,274,301

—the expenditures are ranged under sixteen heads, and the amounts expended under each in 1857 were as follows: interest on public debt £281,036, civil government £74,583, administration of justice £137,740, provincial penitentiary £17,949, legislature £128,959, education £110,009, agricultural societies £22,518, hospitals and other charities £46,605, public works £93,278, militia £48,733, maintenance of light-houses and coast-service £34,269, emigration £5,809, pensions £11,673, Indian annuities £8,855, sinking-fund, etc., £73,000, and miscellaneous £179,284.

41. The public debt of the Province on account of provincial works, and exclusive of loans, etc., on the 31st December of each year since 1841, has amounted to the following sums: 1841, £1,411,239; 1842, £1,588,212; 1843, £2,179,050; 1844, £2,944,004; 1845, £3,341,173; 1846, £3,595,432; 1847, £3,751,818; 1848, £3,873,314; 1849, £4,085,634; 1850, £4,512,468; 1851, £4,451,961; 1852, £4,666,193; 1853, £4,621,290; 1854, £4,353,949; 1855, £4,310,636; 1856, £4,703,303; and 1857, £5,367,564. The total amount of liabilities on the 31st December, 1857, was £15,789,210, of which £5,367,564 (as above) was the absolute debt incurred in the prosecution of provincial works, and includes the imperial guaranteed loan of £1,825,000 and debentures, payable in London £2,871,722 and in Canada £670,842; £7,716,163 provincial debentures loaned to municipalities and railroad companies; £703,518 special funds variously invested, and £2,001,963 miscellaneous liabilities. The three last-named sums, amounting to £10,421,646, constitute the contingent debt of the Province.

42. Education in Canada is receiving increased attention, especially in the western district, and schools are now open to all classes. The following abstract from the school returns of 1851 and 1856 exhibits the schools then in existence and the progress of the development of educational means between the two periods:

Classification.	CANADA WEST. Schools. 1851.	1856.	Scholars. 1851.	1856.	CANADA EAST. Schools. 1851.	1856.	Scholars. 1851.	1856.
Common schools	3,001	3,472	168,159	251,145				
Private " (report'g)	159	239	3,948	5,213				
County gram. schools	70	89	2,800	4,393				
Normal and model sch.	2	3	356	772				
Colleges and univers.	7	12	132	1,335				
Elementary schools					2,114	—	92,275	—
Independent "					85	—	4,923	—
Superior girls' "					53	—	3,041	—
Academies					19	—	1,169	—
Conventual schools					44	—	2,786	—
Model schools					67	—	3,524	—
Classical colleges					14	—	2,110	—
Total	3,239	3,815	175,895	262,858	2,396	—	109,828	—
Popula. between 5 and 16 years of age			258,607	321,187				
Scholars in prop. to school-age, popula.			.68	.82				

Teachers in 1851—males 2,551 and females 726—total 3,277
" in 1856— " 2,622 and " 1,067— " 3,689
Teachers in 1852 .....males 808 and females 1,404
" in 1857 ..... " and "

—the total of funds raised for educational purposes in Canada West was—in 1851, £154,218, and in 1856, £336,192; and in Canada East in 1851, £68,897, and in 1856, £ ? .

43. Of the whole people, one half are Roman Catholic, the greater part Lower or French Canadians, and the remainder chiefly Irish and their descendants; one seventh belong to the Church of England, and of these five sixths are found in Canada West; one eighth are Methodists, of which nine tenths are in Canada West; one tenth are Presbyterians, and one thirty-seventh Baptists, both most numerous in the western district. The remainder of the population is divided among a large number of minor sects, among which unclassed Protestants, Lutherans, Congregationalists, Quakers, Mennonites, and Tunkers are the most extensive. These several denominations are all legally on an equality and equally protected, none having privileges over others, and hence a marked tolerance and Christian feeling exists among them. The clergy, as a body, are hard-working and zealous, and many of them have attained high positions for learning and literary ability.

44. In Canada West the principal places are the cities of Toronto, Hamilton, Kingston, and Ottawa, and the towns of London, Belleville, St. Catherine's, Brantford, Cobourg, Dundas, Niagara, etc. In Canada East, Montreal and Quebec hold the first rank, and of minor importance are the towns of Three Rivers, St. Hyacinthe, Sherbrooke, Sorel, etc.

45. Toronto,* the provincial capital, occupies a rather low site on a beautiful and nearly circular bay on the north shore of Lake Ontario, with which the bay communicates by a narrow entrance, and from which it is separated by a low sandy belt, nearly five miles long. Latitude 43° 39′, and longitude 79° 21′. The town, which is in the form of a parallelogram, is built with great regularity, and the streets are generally well paved, spacious, and lighted with gas. The houses are for the most part substantial, and in the principal thoroughfares have often an elegant appearance. Public buildings are numerous, among which may be specially named the Episcopal and Roman Catholic cathedrals, the City Hall, the Normal and Model schools, the Lunatic Asylum, etc. Other important buildings and institutions are the University and the Upper Canada and Trinity colleges, the Parliament Houses, the Government House, etc. Toronto is also the seat of St. Michael's (Roman Catholic) College, Knox College, the Congregational Institute, the United Presbyterian Divinity Hall, the Toronto Academy, and a county grammar school. The principal scientific and literary institutions are the Observatory, the Canadian Institute, the Atheneum, and the Mechanics' Institute. There are also various hospitals and charitable establishments, markets, etc. Toronto has numerous manufactories, among which are founderies, tanneries, breweries, distilleries, furniture, starch, glue, soap and candle factories, ropewalks, paper and flour mills, etc. The harbor, which admits vessels of the largest size navigating the lakes, is remarkably well sheltered, and affords great facilities for its extensive and increasing trade; and commerce is not only fostered by the numerous steamboats which connect it with other towns both in Canada and the United States, but from Toronto, as a center, railroads diverge east and west, and to the north as far as Lake Huron, affording vast facilities to inland trade and travel. The railroads diverging hence are the Grand Trunk, for Quebec and Portland east and Stratford and Sarnia west; the Great Western, for Niagara and Detroit, etc., and the Ontario, Simcoe and Huron, for Collingwood, at which place connection is made with steamers for Sault Ste Marie and places on lakes Michigan and Superior. Lines of steamers ply regularly to all the Canadian lake ports, and also to Rochester, Oswego, etc., on the American side of the lake. The population, which in 1841 was only 15,336, had increased in 1851 to 30,775, in 1856 was estimated at 51,000.



CITY OF TORONTO.

From "Hunter's Panoramic Guide of the St. Lawrence." By permission of the publishers, J. P. Jewett & Co.

46. Hamilton is beautifully situated at the western extremity of Burlington Bay, near the shore of Lake Ontario. The construction of the Burlington and Des Jardins canals, and of the several railroads (to Niagara, Toronto, and Detroit) centering in the town, have much promoted its prosperity. The streets



CITY OF HAMILTON.

10 * Not including expenses of collection, etc.

* The permanent capital is to be located at Ottawa City.

are well laid out, and many of the houses are built of stone. It contains a court-house, town-hall, custom-house, theater, news-room, mechanics' institute, and other public buildings, and places of worship for the principal sects. It is a place of great commercial importance, and is rapidly becoming a first-rate city. Steamboats ply regularly to and from all the principal lake ports, and every facility is otherwise afforded for interior communications by its railroads, etc. Population (1851) 14,112, and (1856) 22,440.

47. Kingston is advantageously situated at the outlet of the Rideau Canal and Cataraqui River (here crossed by a bridge 600 yards long), and is important in a military as well as a commercial point of view, being the key of the central St. Lawrence, as Quebec is of the river's seaward extremity. In its neighborhood is Navy Bay, a narrow and deep inlet of Lake Ontario, and which is the chief naval station on the lakes. The principal public buildings are the City Hall, containing also the post-office and a market, the Presbyterian College, a hospital, etc., and several handsome churches. Ship-building is carried on, and also several manufactures; and the place has a considerable commerce. The Grand Trunk Railroad passes through the city, and it is also connected by steamboat with all other principal towns. In 1851 it contained 11,585, and in 1856, 17,759 inhabitants. In the vicinity there are several mineral springs.



CITY OF KINGSTON.

48. Ottawa City (formerly Bytown), on the Ottawa, at the junction of the Rideau Canal with that river, and 92 miles northeast of Kingston, is divided into the upper and lower towns—the former the aristocratic and the latter the business portion of the city. It contains several handsome public buildings, churches, etc., and the scenery in the neighborhood is, next to that of Niagara, the finest in Canada. The Chaudiere Falls, a short distance above the city, are beautiful, and below these a handsome suspension bridge crosses the river. The trade of the city is chiefly in lumber. It is connected by railroad with Prescott, opposite Ogdensburg, and a railroad is being built to Montreal on the northeast side of the Ottawa. Population (1851) 7,760, and (1856) 12,155.

49. London is finely situated at the junction of two branches of the river Thames, 114 miles by railroad from Toronto, and between that city and Detroit. It is one of the most thriving towns in Canada West, and has extensive manufactures and a considerable local trade. Population (1856) 14,960. The Port Stanley Railroad connects it with Lake Erie, and the Grand Trunk also comes in here, and a railroad is also in progress to Saugeen, on Lake Huron. Belleville, on the Bay of Quinté, is a place of considerable trade, and the point whence the Grand Junction Railroad leaves the Grand Trunk. St. Catharine's, on the Welland Canal, is also a trading town, and exports flour. Brantford, on the left bank of Grand River, has extensive manufactures, and is one of the principal towns on the Buffalo and Lake Huron Railroad. A canal about two miles and a half long enables vessels of moderate draught to pass the falls of the river and reach the town. Cobourg, on Lake Ontario, is a well-built town, and has several manufactures and a considerable trade. Here the Cobourg and Peterboro' Railroad leaves the Grand Trunk and lake navigation. Victoria College has its seat in this town. Dundas is a manufacturing town about five miles from Hamilton, and owes its prosperity to its extensive water-power. In the immediate vicinity are splendid quarries of freestone and limestone, the stone of which is largely exported. Niagara, on the west bank of the river so called, at its mouth in Lake Ontario, is well-built, has a brisk trade, and is a principal depôt of the lake line of steamboats. The Harbor Company have extensive ship-yards at this place. Under the name of Newark it was for a short period the capital of Upper Canada, and has long been famous for its cider. The Ontario and Erie Railroad connects it with the upper lakes. Brockville, on the St. Lawrence, and on the Grand Trunk Railroad, 48 miles east of Kingston, is a finely-built town, and has manufactures and a thriving trade. A railroad hence is being built to Arnprior and Pembroke on the Ottawa River, with a branch to Perth.

50. Of the other towns of Canada West the principal are: Amherstburg, a garrison town on the Detroit River; Barrie, on Lake Simcoe, and on the railroad between Toronto and Collingwood; Chatham, on the Thames; Cornwall, at the terminus of the Cornwall Canal on the St. Lawrence; Goderich, on Lake Huron, at the entrance of the Maitland River, and at the western end of the Buffalo and Lake Huron Railroad; Guelph, on the Grand Trunk Railroad; Perth, on the Tay, and connected with the Rideau Canal by a branch 11 miles long; Peterboro', on the Trent, and connected by railroad with Cobourg; Pictou, on the Bay of Quinté, a manufacturing and commercial town; Port Hope, on Lake Ontario, 8 miles from Cobourg, and connected by the Port Hope, Lindsay, and Beaverton Railroad with the interior; Prescott, on the St. Lawrence River and Grand Trunk Railroad, opposite Ogdensburg, and connected also by railroad, with Ottawa City; Sandwich, on the Detroit River; Woodstock, a trading town, etc.

51. The principal villages in the Western District are—Chippewa, on the Niagara River, and the present terminus of the Ontario and Erie Railroad; Galt, on the railroad connecting the Great Western and Grand Trunk lines at Guelph and Harrisburg; Paris, a thriving place at the crossing of the Great Western, and Buffalo and Lake Huron railroads; St. Thomas, on the London and Port Stanley Railroad; Preston, on the railroad four miles north of Galt, and from which the road bifurcates to Guelph and Berlin; Thorold, on the Great Western Railroad and on the Welland Canal, etc.

52. Montreal is the largest city of Canada East. It is situated at the head of ship navigation on the St. Lawrence, and on the east side of the island o. Montreal, in latitude 45° 30′, and longitude 73° 35′. The island, which is at the confluence of the Ottawa, is 32 miles long and about 10 miles broad at its widest part, and generally level, and watered by numerous small streams. Behind the town, however, there is a hill of considerable elevation, and from this its name, Montreal or Mont Royal, is derived. The city contains several handsome streets, and its houses are substantially built, generally of stone. The principal buildings are the Government House, the Court House, the Ordnance Office, the banking houses, the General Hospital, and the market-houses; the Hotel Dieu, a large conventual establishment; the Catholic Cathedral, the finest ecclesiastical structure in British America; the Montreal and McGill colleges, the Royal Grammar School, etc. Seminaries, schools, public libraries, and public charitable institutions are numerous. A colossal statue of Nelson, on a Doric column, adorns one of the squares. Montreal has an increasing and valuable trade and several important manufactures. Its harbor, though not large, is very safe and convenient, and ships of 600 tons burden can receive and discharge their cargoes at the quays. Its communication with the river and lake ports is provided for by regular lines of steamboats, and it is also a principal railroad center, from which diverge lines east to Quebec, etc., southeast to Portland and New England generally, south to New York, and west to Toronto, Detroit, etc.; and a line is being built on the north-east side of the Ottawa to penetrate the regions about Lake Superior. With these facilities for intercommunication the city is rapidly rising in the scale of importance, and within the five years ending with 1856 its population has increased from 57,715 to about 75,000. The Victoria Bridge, which here spans the St. Lawrence, is one of the most stupendous structures ever projected. Its completion will be of vast advantage to the commerce of the city.



CITY OF MONTREAL.

From "Hunter's Panoramic Guide of the St. Lawrence." By permission of the publishers, J. P. Jewett & Co

53. Quebec, the most ancient city of Canada, is situated on the north bank of the St. Lawrence, 410 miles from the sea, and 180 miles below Montreal, in latitude 46° 49′, and longitude 71° 14′. The river is here about a mile wide. Quebec is built on a promontory near the confluence of the St. Charles, terminating abruptly in Cape Diamond, which has a height of 362 feet, and on the low banks below the rocks along the margins of both streams. It thus comprises the upper and the lower towns. The upper town, on the summit of the promontory, is strongly fortified, the citadel occupying the highest elevation, and the whole position is so strong by nature that it is justly deemed all but impregnable. On the same plain with the upper town, to the west, lies the suburb of St. John, and to the southwest are the Plains of Abraham. The lower town lies under the cliffs along the St. Lawrence and St. Charles, and adjoining it on the west, on a flat on the latter stream, lies the suburb of St. Roche. The towns are connected by three gates, and two gates in addition lead out from the upper town to the Plains. The streets of the city are, as a whole, narrow, irregular, and fre-

quently steep, excepting in the suburbs, which are modern and built upon a more regular plan. The houses are principally of stone or brick, and their roofs, generally of a high pitch, impart



CITY OF QUEBEC.

a quaint and antique appearance to the city. The streets are lighted with gas, and water is brought to the city from Lake St. Charles. The lower town is the great seat of business; the banks of both rivers are lined with warehouses, and with wharves jutting about 200 feet out into the streams, along which the largest vessels can moor. The basin of the river immediately below the city affords excellent anchorage. The principal buildings in respect of architecture are the old Parliament House, the Roman Catholic and Protestant cathedrals, and the Scotch Free Church. Other important structures and institutions are the Hotel Dieu Nunnery and Hospital, the Ursuline Convent, the French College, the General and Marine hospitals, the Exchange, Public Library, Museum of the Literary and Historical Society, and the Barracks, formerly the Jesuit College. On the Plains of Abraham a column 40 feet high has been erected to the memory of Wolfe, and in the upper town a handsome obelisk, on a granite pedestal 65 feet high, to the joint memory of Wolfe and Montcalm, both of whom fell at the capture of the city. Quebec has several important manufactures, but is chiefly noted as the first commercial port of the Province and for its ship-building establishments. It is also the chief seat of the Canadian winter trade, and also of the timber trade. The city was founded in 1608 by Champlain, fortified in 1690, and remained in the possession of the French until 1759, when it fell into the hands of the British in consequence of Wolfe's famous victory on the Plains of Abraham. The winter of Quebec is as severe as in the center of Russia, and the summer as warm as in the south of Italy. The inhabitants are mostly of French descent, the French language is that generally spoken, and a large majority of the people profess the Catholic religion. This city is connected with Montreal and the ports of the United States by railroad, and other lines are being built to connect it with Halifax and St. Andrew's on the east. The population, which in 1851 amounted to 42,052, had increased to 60,000 at the end of 1856.

54. Three Rivers is situated at the confluence of the St. Maurice with the St. Lawrence, midway between Quebec and Montreal, and is one of the principal depôts of the North-West traders, and is otherwise a place of considerable commercial importance. It has a brisk trade in pot and pearl ashes, and near by are iron mines, which will ultimately contribute to its prosperity. Ste Hyacinthe is situated on the left bank of the Yamaska, about 30 miles east-by-north from Montreal, and is the seat of a college. Sherbrooke is built at the junction of the Magog and St. Francis rivers, and has extensive water-power. Sorel or William Henry, at the confluence of the Richelieu, is likely from its advantageous situation to become a very important town. By the Chambly Canal there is a communication between Lake Champlain and the St. Lawrence at Sorel, and there is also a railroad on the same line of route. Besides Quebec and Montreal the only sea-ports are Amherst, on the Magdalen Islands; Gaspé, on the bay of the same name, an arm of the Gulf of St. Lawrence, south of Cape Gaspé and New Carlisle, on the Bay of Chaleurs.

55. Canada is said to have been discovered by Giovanni Caboto, a Venetian, holding a commission from Henry VII. of England, in 1497; but immediately afterward fell into the possession of France. It was not, however, until 1544 that the first European settlement was formed; in which year Jaques Cartier, a French navigator, sailed up the St. Lawrence and wintered at St. Croix harbor. In 1608 a permanent settlement was made on the present site of Quebec, Canada then being called New France; and in 1632 the title of France to the country was formally recognized by the treaty of St. Germains.

56. From this period until 1759 the French continued to occupy the country; but in that year an English army under General Wolfe captured Quebec, and within a short period thereafter all other places within the government were surrendered to the British, and by the treaty of Paris in 1763 ceded in full. In 1774 a council of not less than 19 nor more than 23 members was authorized to administer the affairs of the Province; and in 1791 Canada was divided into two separate provinces, called Upper and Lower. By the act authorizing this division the governor was empowered to summon 15 councilors in Lower Canada and 7 councilors in Upper Canada; and the administration of the latter was intrusted to a lieutenant-governor. Houses of assembly were at the same time formed to consist of not less than 50 members in Lower nor than 16 members in Upper Canada, to be elected by qualified voters, who in counties were freeholders to the value of 40 shillings per annum, and in towns £5 householders or £10 householders. In 1830 the franchise was granted to foreigners (qualified as above) after a five years' residence in the colony.

57. In consequence of the Rebellion, the constitution was suspended in Upper Canada in 1838, and a special council appointed. In 1840 Upper and Lower Canada were reunited, and a legislative council of the united provinces consolidated. This council was to consist of not less than twenty (and has, in fact, numbered forty-seven) members appointed for life, ten, including the speaker, to be a quorum. The house of assembly, constituted at this time, consisted of 42 members from each district, elected for four years. The qualifications required by the act establishing these dispositions for members of assembly were the possession of a freehold of the value of £500 sterling and a sworn allegiance to the crown.

58. Municipal institutions were established in 1840 for the management of local affairs. These are district councils, composed of representatives of a number of townships elected by the householders. The presidents of these councils are wardens appointed by the crown, and the meetings are held quarterly.

59. The present constitution of Canada is defined by three acts of Parliament, all of which were assented to on the 14th July, 1853. By the first of these, entitled "An act to enlarge the representation of the people," certain new constituencies were created, and several of those already existing were subdivided or reconstructed. The result is, that the two districts now consist of 127 electoral divisions (counties, ridings, and towns included), returning altogether 132 members to the assembly. By the second of the above-mentioned acts, entitled "An act to extend the elective franchise, etc.," a system for the registration of voters is ordained, and the qualifications of voters reduced to £7 10*s.* in cities and towns and £5 in the rural districts. The third act is entitled "An act, etc., for the better securing the independence of the assembly." By this it is provided that no office-holder nominated by the crown shall be eligible for the assembly except members of the executive council and heads of departments. The qualifications for members of the house remain as fixed in 1840.

60. Hitherto the members of the legislative council had been nominated by the provincial governor; but in 1854 an act of Parliament was passed which empowered the provincial legislature to constitute the council an elective body. This change was effected in 1856.

[*Weights, Measures, and Moneys.*—Same as in the United Kingdom. The pound (£) currency, however, is equivalent only to $4. In Canada East the old French denominations of weights and measures are still to some extent in use.]

PROVINCE OF NEW BRUNSWICK.

1. New Brunswick is situated between latitudes 45° 5′ and 48° 4′ north, and longitudes 63° 53′ and 67° 47′ west; and is bounded on the north by Canada and the Bay of Chaleurs; on the east by the Gulf of St. Lawrence and Cumberland Strait; on the southeast by Nova Scotia (with which it is connected by a narrow isthmus); on the south by the Bay of Fundy, and on the west by the St. Croix River and the east line of the State of Maine. The greatest length of the country, north and south, is 208 miles, and width from 100 to 180 miles. The area is computed at 27,704 square miles.

2. Along the shores of the Gulf of St. Lawrence, and for 10 or 12 miles inland, the country is low and marshy; the southern front is bolder; but on both sides there are numerous fine ship harbors and deep bays. The interior presents a series of bold undulations, sometimes rising into mountains or continuous ridges of high land. The latter, however, are seldom of any considerable elevation, but from their precipices and ravines contrast strikingly with the rich valleys which alternate with the more rugged scenery.

3. New Brunswick can everywhere be penetrated by its streams, and in some parts of the interior the sources of rivers flowing in opposite directions are separated only by short portages. The principal rivers are the St. John, Peticodiac, and St. Croix, all discharging through fine bays into the Bay of Fundy, and the Ristigouche, Miramichi, and Richibucto, flowing into the Gulf of St. Lawrence. Nearly one half of the surface belongs to the basin of the St. John and a fourth to that of the Miramichi. All these are noble navigable rivers; and there are many others of smaller capacity flowing directly into the ocean. Lakes are numerous, but generally of small extent. Grand Lake, on the eastern boundary, is 30 miles long and from 3 to 9 miles wide, and communicates with the river St. Croix. Most of the other lakes are the sources of tributaries of the St. John and Miramichi.

4. Along the shores facing the Bay of Chaleurs and the Gulf gray sandstone and clay slates predominate, with detached rocks of granite, mica, quartz, and iron-stone; and on the south coast, along the Bay of Fundy, limestone, graywacke, clay slate with sandstone, interrupted occasionally by gneiss, trap, and granite. Amethyst, carnelian, jasper, etc., are found in various places. Extensive veins of coal, lying a few feet above the water-level, and running horizontally, exist on the shores of Grand Lake, and coal is also found on the Salmon River. Iron ore and copper, plumbago, and manganese are abundant, and near the Chignecto basin gypsum and grindstone are found in inexhaustible quantities. Salt springs are found in several districts.

5. The climate of New Brunswick is subject to great extremes of heat and cold, but is eminently salubrious and not adverse to agricultural pursuits. The severest cold of winter usually continues from the solstice to the spring equinox. The summers are comparatively short but very hot. The coast is frequently visited by dense fogs from the south, which penetrate 15 to 20 miles inland. The fall is a season of exceeding beauty, the air being dry and clear, and the woods glowing with innumerable tints of the richest and most brilliant hues.

6. Of the soil and capabilities of New Brunswick it is scarcely possible to speak too favorably. The mineral matters produced by the decomposition of the rocks contain every ingredient requisite for the formation of a good soil; and few countries are better watered or drained. A large portion of the surface is covered with dense forests of pine, hackmatack, cedar, etc.,

and all fruit-trees acclimatable in the northern half of North America thrive here; but the peach can scarcely accommodate itself to the short summers, nor Indian corn be cultivated with success. The smaller cereals, as rye, oats, barley, and summer wheat ripen perfectly, and potatoes, turnips, and the common legumes find a climate and soil peculiarly adapted for their complete development. The most profitable crop, however, is grass, which occupies about four fifths of the land on every large farm. Agriculture, however, has hitherto made but small progress in the Province, and the demand for food in ordinary years is far beyond the supply raised on the soil. The inhabitants, indeed, find a more profitable pursuit in the lumbering business. The quantity of land under culture in 1841 was 426,611 acres, and in 1851, 643,954 acres, or at the latter period less than one twenty-eighth part of the total area.

7. Manufactures, with the exception of the preparation of lumber for market and ship-building, are limited almost exclusively to articles of primary necessity. In 1851 there were in the Province 584 saw-mills, 261 grist-mills, 125 tanneries, and 11 founderies, with several other establishments, as breweries and distilleries, weaving and carding shops, etc. The amount of lumber floated down the rivers is immense, and constitutes the staple of export. In the same year 34,350 tons of shipping were built. Mining and quarrying are also carried on to some extent, and contribute materially to the general commerce; coal, iron, lime, granite, and gypsum being largely exported. The gulf and bay fisheries are also valuable, and in the fishing season about 500 provincial vessels engage in this pursuit. This, however, conveys but a very imperfect idea of the extent of these fisheries, as vessels from the United States are much more numerous in these waters than those of New Brunswick.



SHIP LAUNCH.

8. The great extent of sea-coast and the many fine harbors furnish admirable facilities for commerce. The principal exports are the rough productions of the country, chiefly timber, fish, etc., and the chief imports, breadstuffs and salted meats, colonial produce, and manufactures generally. In 1851 the exports were valued at $3,860,120, and the imports to $4,901,200. In the same year 2,981 vessels (538,528 tons) were entered, and 3,058 vessels (489,150 tons) were cleared; and there were 775 vessels, measuring 117,475 tons, owned within the Province. The ports open to foreign commerce are St. John and St. Andrew's, on the Bay of Fundy; Miramichi and Richibucto, on the Gulf of St. Lawrence, and Bathurst and Dalhousie, on the Bay of Chaleurs.

9. The internal trade of the colony is comparatively extensive, and few countries have greater facilities of transport. Its rivers are unsurpassed for steam navigation. On the St. John steamers ascend to the Grand Falls, 225 miles, and are there interrupted by a cataract, the waters of which have a perpendicular descent of 80 feet; but steamers also navigate its upper waters to the mouth of the Madawaska. The whole length of the river is 400 miles. The Miramichi is navigable for ships of 700 tons for 30 miles, and has a total length of 220 miles. The roads of the country are also respectable, and several railroads are being constructed. The only ones as yet completed are portions of the New Brunswick and Canada railroad (open from St. Andrew's to Woodstock, 90 miles), and of the European and North American Railroad, which is intended to connect Halifax by one branch with Canada and by another branch with the United States. Telegraphic wires extend on the one hand into the United States and on the other hand into Nova Scotia and Newfoundland; and by means of these news of a coming steamer is heralded from St. John's, N. F., or Halifax, N. S., and known in New York and New Orleans almost before its anchor is dropped.

10. New Brunswick is divided into 14 counties, the names of which, with the population in 1851, and capitals of each, are as follows:

Counties.	Population.	Capitals.	Counties.	Population.	Capitals.	Counties.	Population.	Capitals.
Albert	6,313	Hopewell.	King's	18,842	Kingston.	Sunbury	5,301	Magerville.
Carleton	11,108	Woodstock.	Northumberland.	15,064	Miramichi.	Victoria	5,408	Perth.
Charlotte	19,938	St. Andrew's.	Queen's	10,634	Gagetown.	Westmorel'd	17,814	Dorchester.
Gloucester	11,704	Bathurst.	Ristigouche	4,161	Dalhousie.	York	17,628	FREDERICTON.
Kent	11,410	Liverpool.	St. John	38,475	St. John.	Total	193,800	

—of the total population 99,526 were males and 94,274 females, and 191,626 were whites, 1,058 colored, and 1,116 Indian. The Indians are chiefly of the Micmac tribe, and reside in the north part of the Province. With regard to pursuits, 456 were engaged in the professions, 1,665 in miscellaneous employments not strictly manual, 1,292 in trade and commerce, 18,601 in agriculture, 6,822 in mechanical businesses and handicrafts, 1,451 in navigation and the fisheries, and 9,448 as laborers. In 1824 the total population was 74,176; in 1834, 119,457; in 1841, 156,162; in 1851, 193,800; and in 1856 about 220,000.



MICMAC INDIANS.

11. The colonial government is administered by a lieutenant-governor, appointed by the crown, and aided by an executive council of eight members. The legislature consists of a council of 17 members, to which the bishop of Frederickton belongs *ex-officio*, and an assembly of 39 representatives of the people. The system of responsible government was formally recognized by a vote of the provincial legislature, carried 24th February, 1848; and by an act of the 1st May, 1854, the public statutes were revised and consolidated. The judicial system is based on that of England. The revenues are derived chiefly from duties on imports, and amounted in 1851 to $487,424. The expenditures for the same year were $446,624. The public debt is very small.

12. The established religion is that of the Church of England, and the Province forms the diocese of Fredericton. The other principal denominations are the Established and Free churches of Scotland, the Reformed Presbyterian, Congregationalist, Wesleyan Methodist, Baptist, and Roman Catholic. In all there are about 460 churches. Schools are established in the parishes, and grammar schools in the counties; and there is a college at Fredericton. There are also other schools for instruction in the higher branches; but generally education has been greatly neglected, and not more than one in ten of the inhabitants were attending school in 1851.

13. The principal towns are Fredericton, St. John, St. Andrew's, Liverpool, Miramichi, Bathurst, etc. Fredericton, the capital, is situated on the St. John, 90 miles from the sea, and in latitude 45° 55′ and longitude 66° 38′. The streets are regular, and the houses generally built of wood. The public buildings are the Province Hall, the Government House, etc. Fredericton is a port of entry, and the chief entrepôt of the commerce with the interior. Population 4,458.

14. St. John is situated on a rocky point projecting into its harbor at the mouth of St. John River. Latitude 45° 14′, and longitude 66° 3′. The city is regularly laid out and well built, of brick or stone, but some of the streets are inconveniently steep. Many of the public buildings have a respectable and even elegant appearance. The harbor is capacious, safe, and never obstructed with ice, and has a good entrance two miles below the city. It is the entrepôt of a wide extent of country abounding in agricultural, mineral, and forest resources, and is the principal sea-port of the colony. In 1851 its exports were valued at $2,570,130, and its imports at $3,236,765; and the number of vessels built in the year was 72, of a capacity of 37,607 tons. Steamers ascend the river to Fredericton, Woodstock, etc., and a regular steam communication is maintained with St. Andrew's, Portland, etc. It has also telegraphic communication with Halifax, Portland, Boston, etc., and the European and American Railroad will connect it with the same places. The fisheries in the harbor are very valuable. St. John was founded by American loyalists, who left the United States at the close of the Revolution. Population 22,745.

15. St. Andrew's is a sea-port at the northeast extremity of Passamaquoddy Bay. It is conveniently situated for commerce and especially for the fishing trade, which is carried on here to a large extent. The lumber trade and ship-building also employ a large portion of the inhabitants. The harbor is entered by two passes leading from the mouth of the river Schoodic, and has a depth sufficient for the largest vessels. The New Brunswick and Canada Railroad, now open to Woodstock, 90 miles, when completed will connect St. Andrew's with the railroad system of Canada. Population about 8,000. Woodstock is a flourishing town on the St. John, 65 miles northwest from Fredericton. In the vicinity there are inexhaustible iron mines, and the ores of manganese are also abundant.

16. Liverpool, on Richibucto harbor, is the center of an important trade in timber, etc., and is a safe and commodious port. Miramichi, at the head of the harbor of the same name, has also a large trade in timber and fish. The river at its mouth is nine miles wide. Below, on opposite sides of the bay, are Newcastle and Chatham, both eligible ports. Bathurst, at the head of Nipisignit Bay, an arm of the Bay of Chaleurs, has a well-sheltered harbor, and is the principal sea-port for the northern districts. Dalhousie, at the entrance of the Ristigouche into the Bay of Chaleurs, is a fine timber port.

17. New Brunswick was first settled by the French in 1639, and, with Nova Scotia, formed part of Acadia or New France. It was ceded to the English by the treaty of Utrecht in 1713, but until the final overthrow of the French power in North America, in 1758 and 1759, the British could not be said to have peaceable possession of the country. The first settlement of British subjects was effected in 1761, and afterward, in 1783, many of the troops (Hessians) disbanded at the close of the American Revolution settled on lands granted them by the government. In 1784 New Brunswick (which to that date had formed a part of Nova Scotia) was erected into a separate colony, and, by royal charter, a constitution was granted to the inhabitants, which, to the present day, has not been materially altered.

[*Weights and Measures.*—British Imperial System. *Money*—Colonial pound (£ currency) = $4 00.]

PROVINCE OF NOVA SCOTIA.

1. NOVA SCOTIA is situated between latitudes 43° 26′ and 47° 5′ north, and longitudes 59° 48′ and 66° 16′ west; and is bounded on the north by Cumberland Strait and the Gulf of St. Lawrence; on the east, southeast, and south by the Atlantic Ocean; on the west by the Bay of Fundy, and on the northwest by New Brunswick, with which it is connected by a narrow isthmus. Its greatest length, northeast and southwest, is about 280 miles, and its breadth varies from 60 to 120 miles. The area is computed at 18,746 square miles.

2. The Province consists of three distinct portions—the peninsula of Nova Scotia, the island called Cape Breton, and Sable Island. The last named lies immediately east of Halifax, in Nova Scotia, in longitude 60° west, and in the track of vessels bound to and from Europe. In length about 30 miles and in width from 1 to 2 miles, it is shaped like a bow, diminishing at both ends, and at most is but a hard sand-bank, and an obstruction in the ocean to be avoided by the mariner.

3. Nova Scotia, the largest section of the Province, lies almost parallel with the southern

coast of New Brunswick. It has a remarkably broken coast, and, especially in the southeast, presents a vast number of capacious harbors and excellent sea-ports. The interior forms a table-land of moderate elevation, some portions of which have a hilly surface, and contain numerous small lakes, but to the southwest, around Annapolis, the country is a beautiful and fertile plain. The most remarkable body of water in Nova Scotia is the Mines Basin, an arm of the Bay of Fundy, penetrating 60 miles inland, and terminating in Cobequid Bay. The tides here rush in with great impetuosity, and form what is called the "bore." The other principal bays are those of St. George and Chedabucto in the east, St. Mary's and Townsend in the west, and Mahone and St. Margaret's on the south coast. The Annapolis is the largest river, and has a length of 100 miles, and is navigable for larger vessels for 40 miles from the Bay of Fundy. The other principal rivers are the Shubenacadie, which, by means of a canal, opens communication between Cobequid Bay and Halifax harbor; the Musket and Clyde, in the south; the Mersey, falling into Liverpool harbor; and the Musquedoboit and St. Mary, falling into the Atlantic east of Halifax. Most of these rivers are navigable a short distance from their mouths.



SAMBRO LIGHT—ENTRANCE TO HALIFAX HARBOR.

4. Cape Breton Island lies to the east of Nova Scotia, and is divided from it by a narrow channel called the Gut of Canso. This strait is only three fourths of a mile wide; but it is a deep and safe channel, and affords the best passage for ships bound to and from Prince Edward Island and other places in the Gulf of St. Lawrence. The island is of a very irregular shape, and greatly indented with bays. An inlet, called Bras d'Or, entering it on the east, nearly separates it into two islands, rendering every part of its interior accessible by water. The two divisions thus created are in striking contrast: the northern portion being high, bold, and steep, while that to the south is low, intersected by numerous inlets, diversified, and rises gradually from its interior shore until it presents abrupt cliffs toward the Atlantic Ocean. The highest land in this portion does not exceed 800 feet, while the northern division, at its termination in North Cape, rises to the height of 1,800 feet. Between North Cape and Cape Ray, on the opposite coast of Newfoundland, 48 miles distant, is the main entrance to the Gulf of St. Lawrence.

5. Both the mainland and the island abound in minerals and are extremely rich in coal, iron, copper and silver, lead, manganese, etc. Coal and iron are extensively mined, both in Nova Scotia and Cape Breton. Building stone is also largely quarried and exported, and there is also abundance of roofing slate, grindstone, gypsum, etc. Beautiful agates, amethysts, chalcedonies, jaspers, etc., abound in various localities.

6. The climate is remarkably temperate; the insular position of the Province, and the proximity of the Gulf Stream serving to render the temperature milder and more equable than that of Canada. The springs, however, are tedious; but the summer heats being for a brief period excessive, vegetation is singularly rapid; and the autumns are delightful. Dense fogs are prevalent along the Atlantic.

7. The Province is divided into eighteen counties, the names of which, and the population in 1851, were as follows:

Counties.	Population.	Capitals.	Counties.	Population.	Capitals.	Counties.	Population.	Capitals.
Annapolis.....	14,285	Annapolis.	Halifax	39,112	HALIFAX.	Queen's.....	7,256	Liverpool.
Cape Breton*	27,580	Sidney.	Hants	14,330	Windsor.	Richmond*...	10,381	Arichat.
Colchester	15,469	Truro.	Inverness*....	16,917	Port Hood.	Shelburne	10,622	Shelburne.
Cumberland...	14,339	Amherst.	King's.....	14,138	Kentville.	Sidney.....	13,467	Antigonish.
Digby	12,252	Digby.	Lunenburg ...	16,395	Lunenburg.	Victoria*	†	Bedeque.
Guysboro'	10,838	Guysboro'.	Pictou.....	25,598	Pictou.	Yarmouth	13,142	Yarmouth.

—making a total of 276,117, of which 270,153 were white and 4,903 colored persons, and 1,056 Indians, and 137,677 were males and 138,440 females. With regard to pursuits, 576 were engaged in the learned professions, 2,415 in trade and commerce, 3,200 in manufactures, 8,895 as mechanics, 31,604 as farmers, 9,927 in the fisheries; 3,961 as seamen, and 1,254 in lumbering. The population in 1806 was 67,515; in 1817, 91,913; in 1827, 142,578; in 1837, 208,237; in 1851, 276,117; and in 1856 about 320,000.

8. The agricultural capacities of Nova Scotia are very great. But little of its soil is inferior, and much of a rich alluvial quality, and frequently even the hilltops are highly productive. In 1851 the quantity of land under cultivation was 539,322 acres, of which 40,012 acres were "dyked" marshes, or reclaimed alluvial lands, chiefly at the head of the Bay of Fundy. The principal cereals produced are oats, wheat, barley, and buckwheat; and the potato and turnip crops are large. Livestock is abundant and of excellent breeds. In the western counties there are extensive apple orchards, and apples and cider enter largely into the export trade.

9. Manufactures are as yet limited to articles of prime necessity. Coarse cloths, called "homespun," are made by the farmers, and also coarse flannels, sheeting, blankets, etc. Tanning is also extensively carried on, and in the towns and villages boots, shoes, saddlery, harness, furniture, and agricultural implements are made in large quantities. In the neighborhood of Halifax tobacco, confectionery, paper, hats, etc., are manufactured. In 1851 there were in the colony 10 steam mills or factories, 237 tanneries, 9 founderies, 81 carding and weaving establishments, 17 breweries, and 131 other establishments, besides 1,153 saw-mills and 398 grist-mills. Ship-building is also somewhat extensively engaged in, and from 30 to 40 vessels (chiefly small) are built in the colony every year.

10. The fisheries, both of Nova Scotia and Cape Breton, are very valuable, and are systematically prosecuted. In 1851 there were fitted out at the various ports for the coast and deep sea fisheries 812 vessels and 5,161 boats, with 30,154 nets and seines. The products in that year were valued at nearly a million dollars. In this branch of industry Nova Scotia is only excelled by Newfoundland; but here also the mackerel and herring fisheries, which claim little attention in the last-named colony, are extensively pursued. The Bay of Fundy is also a valuable ground for the Massachusetts fishermen, and large fleets of American boats are seen during the season at this station.

11. The commerce of Nova Scotia depends chiefly on its mines, forests, and fisheries for material. Agriculture produces little more than is required for consumption, and manufactures nothing for export. The leading articles of export are coal; codfish, herrings, and mackerel; oil; horned cattle and butter; timber, potatoes, etc. In 1852 the total value of exports was $4,752,800, and in the same year the imports, consisting chiefly of cordage, cotton goods, fishing gear, flour, hardware, colonial produce, etc., amounted to $5,969,595. The products of the colony are sent chiefly to Canada, the West Indies, and the United States, and the importations are mainly from Great Britain, the United States, and Canada. No less than 43 home ports are engaged in this trade, the most important of which are Halifax, Pictou, Yarmouth, Arichat, Sidney, Liverpool, Weymouth, Digby, etc.

12. The domestic trade is chiefly carried on by coasting vessels, which penetrate the harbors and rivers. The railroad now being built from Halifax will be extended to Pictou, Amherst, and Windsor. It is now in operation to Truro. The main object of this line, however, is to connect Halifax with the United States, and for this purpose it will form a junction at Amherst with the European and North American Railroad, which, passing through New Brunswick, meets the American system at Calais, in Maine. Halifax is also a principal sea terminus of the American system of telegraphs.

13. The people of Nova Scotia are chiefly of British origin. Of the aboriginal races there are now but few left. Lunenburg County is chiefly inhabited by a colony of Germans and Swiss, who emigrated from Rotterdam in 1753, and there are also several settlements of French Acadians. Time, however, has fused all nationalities. The five largest religious bodies are the Episcopalians, Presbyterians, Roman Catholics, Methodists, and Baptists. Of these the most numerous are the Roman Catholics and Presbyterians, next the Episcopalians, and then the Baptists and Methodists. Education is pretty widely and generally diffused among the people; in 1851 there were 31,354 children attending 1,096 schools.

14. Public affairs are administered by a lieutenant-governor, aided by a council of six members appointed by the crown. The legislature consists of a council of 19 (including the chief-justice and bishop *ex-officio*) members appointed by the governor, and an assembly of 51 members, elected from the counties and chief towns. Electors must be house or land holders to the value of 40 shillings per annum. Justice is administered by district courts and high courts established at the capital. The laws in force are the common and statute laws of the United Kingdom and the statute laws of the Province, which latter were revised and codified in 1851. The system of responsible government was introduced in 1848. The revenue of the colony in 1851 amounted to $350,020, and the expenditures to $338,994. The public debt at the same time amounted to $351,559.

15. Halifax, the capital, is situated on the south coast, nearly equidistant from the extremities of the peninsula, in latitude 44° 39′ 42″, and longitude 63° 35′ 30″. The city is built on a declivity on the west side of a deep inlet of the sea, and, including its suburbs, is between two and three miles long and nearly a mile wide. The streets are spacious and regular, and the houses generally well-built. The chief public edifices are the Province Building, the Dalhousie College, Military Hospital, Exchange, etc. The dock-yard, covering 14 acres, is one of the finest in British America. The harbor extends 15 miles inland; in front of the city it is only a mile broad, but farther up the inlet expands into Bedford Basin, which has an area of 10 square miles, and is capable of accommodating the whole British navy. Besides being the principal sea-port of the colony, Halifax is also the chief naval station for the North American colonies, and is defended by strong forts and batteries. In 1852 its exports were valued at $2,941,030, and its imports at $4,699,320. Halifax has also several manufactures, and a large trade with the neighboring ports and the interior. It has regular steam communication with Europe, Newfoundland, the West Indies, and the United States, and in a short time it will be connected with both Canada and the Union by railroad as it now is by telegraph. Indeed, the position and capacities of the port promise much for its commercial importance. Population about 28,000.



CITY OF HALIFAX.

16. Among the other towns in Nova Scotia are Lunenburg and Liverpool, both on the coast to the southwest of Halifax; Yarmouth, on the southwest coast, at the entrance of the Bay of Fundy; Weymouth, Digby, and Annapolis, on the southeast side of the same inlet; Windsor, on the Avon; Truro, at the head of Mines Basin; Amherst, on the east branch of Chignecto Basin; Pictou, on the shore of Northumberland Strait; Antigonish, on the bay so called, and Guysboro', on Chedabucto Bay; Wilmot, on Cape Canso; Ship Harbor, on the south coast east of Halifax, etc. All these are sea-ports, and most of them engaged in the fisheries and many of them in a flourishing commerce. The only towns of note in Cape Breton are Sidney, on a bay off the northeast coast, and Arichat, on Isle Madame, off the south coast. The first is famous for its vast collieries and its large trade; the latter is also a flourishing trading port.

17. Nova Scotia was discovered by Cabot in 1497; but the French were the first actual settlers. Port Royal, St. Croix, etc., were founded early in the seventeenth century. In 1621 Sir William Alexander obtained from James I. a grant of the territory. The first immigrants under this charter arrived out in 1623. From this time efforts were made to drive out the French, but with only partial success; and by the treaty of Breda, 1667, the colony was absolutely ceded to that nation. Some progress was now made in establishing the fisheries and extending the fur trade. In 1689 the English re-took Port Royal, but again restored it

* In Cape Breton Island.

† Population included with that of Cape Breton County.

to France in 1696. In 1701 war again broke out; but it was not before 1710 that any effective efforts were made by the British to recover the country. An expedition for its capture sailed from Boston on the 18th September of that year, and Port Royal (now Annapolis) capitulated on the 29th; and by the treaty of Utrecht the colony was finally ceded to the conquerors. In 1758 a constitution was granted to Nova Scotia; and in the same year the capture of Louisbourg, in Cape Breton Isle, gave additional security to the colony. By the treaty of Paris, 10th February, 1762, France resigned all further claims on any of her former possessions in North America. In 1784 the colony was divided into three distinct governments—New Brunswick, Cape Breton, and Nova Scotia; but Cape Breton was re-annexed to Nova Scotia in 1819.

[*Weights, Measures, and Money.*—The British Imperial system. The £ currency = $4 00.]

COLONY OF PRINCE EDWARD ISLAND.

1. Prince Edward Island is situated in the south part of the Gulf of St. Lawrence, and separated from New Brunswick and Nova Scotia by Cumberland Strait. It extends from longitude 61° 58′ and 64° 26′ west—130 miles, and from latitude 45° 54′ to 47° 13′ north, and has a width varying from 4 or 5 to 35 miles. The area is stated at 2,134 square miles.

2. The coast-line presents a remarkable succession of large bays and projecting headlands; of the latter the most prominent are the East, North, and West capes, so called from their respective positions, and the largest bays are those of Richmond, on the northwest; Egmont, on the southwest; Hillsboro', on the south, and Cardigan, on the east. These bays, by penetrating into the land from opposite directions, form narrow isthmuses, which make a natural division of the island into three distinct peninsulas; and this natural division has been adopted as the basis of a nearly corresponding civil division into counties.

3. The island is destitute of any bold features. The surface is gently undulating, nowhere rising so high as to become mountainous, or sinking so low as to form a monotonous flat. At one time the whole island was covered with a dense forest of beech, birch, maple, poplar, spruce, fir, hemlock, larch, and cedar; and though destructive fires, lumbering, and cultivation have made large gaps in it, a considerable part of the original forest still remains.

4. The whole island is eminently fitted for agriculture and cattle breeding. The soil consists generally of a light reddish loam, sometimes approaching to a strong clay, but more frequently of a light and sandy texture. The prevailing rock is a reddish sandstone; but a large part of the surface is alluvial, and entirely free from stone. No minerals of the least consequence have as yet been discovered, and even limestone and gypsum, which so abound in the neighboring province of New Brunswick, appear to be wanting.

5. The climate is much milder than that of the adjoining continent, and the air, generally free from the fogs which spread along the shores of Cape Breton and Nova Scotia, is remarkably salubrious. The winter is long and cold; but the summer, without being oppressively hot, is highly promotive of the growth and maturity of all the ordinary cereals. The principal crops are wheat, barley, and oats, all of which are abundant and of excellent quality. Peas and beans are equally good, and potatoes and turnips are nowhere else surpassed. The live-stock of the island is generally of good breeds and receives great care. In 1848 the land occupied was 746,474 acres, of which 215,389 acres were under cultivation.

6. Manufactures, in the proper sense of the term, do not exist, but there are numerous saw and grist mills, and several breweries and distilleries. Linen and flannels are made at home. The fisheries in the Gulf of St. Lawrence and of the strait are extensively engaged in and valuable, and employ great numbers during the fishing season. Ship-building is another important branch. A large portion of the vessels built here are sold in Newfoundland, and employed in the seal and other fisheries.

7. The foreign commerce of the island is considerable. In 1851 the value of exports was $607,389, and of imports $475,871. This trade includes 89 vessels (15,721 tons, valued at $16 per ton) built and exported during the year. Otherwise the exports consisted of fish, oysters, oats, barley, potatoes, wool, and timber. The shipping employed amounted to 41,823 tons outward and 24,993 tons inward, the vessels averaging about 70 tons.

8. In 1848 (latest census) the Colony contained 62,678 inhabitants, which were distributed into the counties as follows:

Prince's County (west) ..... 15,142 | Queen's County (middle) ..... 15,425 | King's County (east)..... 32,111

The present population (1856) is estimated at 85,000 to 90,000.

9. The government is administered by a lieutenant-governor and a council of nine members, appointed by the crown. The legislature consists of a council of six members, also nominated by the crown, and an assembly of 24 members elected by the people. Justice is administered according to the law of England and by courts similar to those in Canada. The revenue of the island amounted in 1851 to $90,155, and in 1855 to $122,756, and the expenditures to $99,695 and $105,804 in the respective years. The public debt in 1851 amounted to $71,756.

10. Nearly one half of the inhabitants belong to the Church of Rome, one tenth to the Church of England, a sixth to the Church of Scotland, and the remainder to the various dissenting denominations. Free schools are established throughout the island and liberally supported by the government. At Charlottetown there is an endowed academy.

11. The principal towns are Charlottetown, Princetown, and Georgetown. Charlottetown is the seat of justice of Queen's County, and the capital of the Colony. It is situated on Hillsboro' River, near the southern coast, and possesses an excellent harbor. Latitude 46° 15′, and longitude 63° 7′. The principal edifices are the Government Buildings, the Episcopal and Scotch churches, the Barracks, and a fort. Population 4,717. Princetown, chief town of Prince County, is situated on the south side of the entrance to Richmond Bay, 35 miles northwest Charlottetown; and Georgetown, chief town of King's County, on a peninsula forming the north boundary of Cardigan Bay, 31 miles east from the capital. These towns, with several others on both shores, are chiefly engaged in commerce and the fisheries.

12. Prince Edward Island was discovered by Sebastian Cabot on St. John's Day, 1497, and first thence called the "Island of St. John." Not having been formally claimed by the English, the French seized upon it as a part of their territory of Acadia, and in 1663 granted it, together with the Magdalen Islands, to Sieur Doublett. It remained, however, as a fishing station until after the treaty of Utrecht, when it began to be permanently settled and became a prosperous colony. On the capitulation of Louisbourg, the island, which had long been the granary for the supply of that fortress, was taken possession of by the English, and having been ceded by France in 1763 it was annexed to the government of Nova Scotia. In 1771 the island was constituted a separate colony, and in 1773 received its present constitution. In 1799, by an act of the colonial government, the name of the island was changed from St. John to Prince Edward. In 1851 the system of responsible government was introduced.

[*Weights, Measures, and Moneys.*—British Imperial. The pound, £, current = $4 00.]

ISLAND COLONY OF NEWFOUNDLAND.

1. Newfoundland is a large island at the mouth of the Gulf of St. Lawrence, and distant only 1,640 miles from the west coast of Ireland. Its northern part is separated from the coast of Labrador by the Strait of Belle Isle, and its southwest extremity from Cape Breton by the main entrance to the Gulf. This island lies between latitudes 46° 37′ and 51° 39′ north, and longitudes 52° 40′ and 59° 30′ west; and has an extreme length, east and west, of 350 miles, and an average breadth, north and south, of 120 or 140 miles, with a coast-line of more than 1,200 miles. The area is stated at 35,913 square miles.

2. Newfoundland is extremely irregular in form, and its shores, particularly on the southeast and south, broken in a remarkable manner by broad and deep bays, harbors, coves, inlets,



ENTRANCE TO THE HARBOR OF ST. JOHN'S.

and lagoons. The most remarkable of these indentations are Hare, White, and Notre Dame bays, the Bay of Exploits, and Bonavista, Trinity, and Conception bays on the east coast; St. Mary's, Fortune, and Placentia bays on the south coast; and St. George's Bay and the Bay of Islands on the west. There are besides these innumerable smaller bays and harbors, and many of these are extensive, commodious, and well-sheltered, with numerous rivulets running into them, while most of the harbors have complete anchorages with clear and good channels.

3. The interior appears to be rocky, with numerous tracts of moss much intersected by rivers and lakes, and but thinly wooded, except on the banks of rivers. Great boulders or loose stones scattered over the country increase its general roughness. Hills and valleys continually succeed each other, the former never rising into mountains (the highest not exceeding 1,500 feet), and the latter rarely expanding into plains. The summits of the hills and ridges and other elevated and exposed tracts are generally bare of vegetable soil, or covered with a thin and scrubby vegetation. The sea-cliffs are for the most part bold and lofty, with deep water close to the shore.

4. Rivers and lakes are numerous, and some of them of considerable size. The largest of the rivers are the Humber and Exploits, both issuing, like all the other streams of the island, from lakes or ponds in the interior. Grand Pond, 50 or 60 miles long by 5 to 8 miles broad, and Indian Lake, 30 miles long and 5 or 6 miles broad, are the largest of the lakes. Otherwise ponds or small lakes are found everywhere over the whole face of the country, not only in the valleys but on the higher lands and even in the hollows of the summits of the ridges and the very tops of the hills. So numerous and extensive are these sheets of water that at least one fifth of the whole surface of the island must be covered with fresh water.

5. The prevalent formation of Newfoundland is granite, and in some parts porphyry, quartz, gneiss, mica, and clay slate, with secondary formations. The minerals of the island comprise coal, gypsum, copper, lead, and, it is said, iron. Salt springs are found on the west coast. In this connection it may be mentioned that the whole of the land in and about Conception Bay—very probably the whole island—is rising out of the ocean at a rate which threatens at no very distant day materially to affect many of the best harbors on the coast. At Ponte-de-Grave, in Conception Bay, several large flat rocks, over which vessels might pass 40 or 50 years ago with the greatest facility, are now approaching the surface, the water being scarcely navigable for a skiff.

6. The climate, though severe, is healthful, and a greater portion of the inhabitants live to a hale old age than in any other of the North American colonies. Winter, which consists of a series of storms of wind, rain, and snow, lasts from the beginning of December until the middle of April, and in January and February the cold is extreme, though less intense than in Canada. The summer is short and warm. In May and the beginning of June dense fogs prevail on the "Banks" and neighboring shores, and are a frequent cause of disasters to shipping.

7. The principal trees are spruce, birch, larch, willow, and mountain ash. In some places where they have been disturbed by the ax, trees of a fair growth and height are found, but

generally the wood is of small and stunted growth, consisting chiefly of fir-trees of from 20 to 30 feet in height and 3 to 4 inches in diameter. These usually grow so close together that their branches interlace from top to bottom. Recumbent and trailing evergreens are met with in great variety, and the berry bearing shrubs clothe every swamp and open tract.



NEWFOUNDLAND DOG.

8. Agriculture is not extensively pursued in this Colony. The amount of land under cultivation, indeed, is very small, either actually or comparatively, and little else but hay and potatoes claim any attention. The crops, however, are abundant, and every kind of grain thrives well, wheat having been known to yield 50 bushels to the acre. But both climate and soil are more favorable to pasturage and green crops than to grain. There are no manufactures.

9. The wild animals are the deer, bear, wolf, hare, beaver, marten, dog, wild cat, etc. The pure breed of the Newfoundland dog, so much celebrated for its size, sagacity, and fidelity, is now rarely to be met with; those generally seen in the island being crosses of every conceivable variety. Birds are numerous, both land and aquatic. On the coasts the morse or sea-horse formerly abounded, but has been nearly annihilated. Seals are numerous, as are also whales, grampuses, and porpoises; and the seas swarm with cod and almost every variety of fish; and sealing and fishing constitute the great employment of nine tenths of the inhabitants.

10. These fisheries are pursued chiefly on the Grand Bank, but also off the immediate shores. The banks of Newfoundland form the most extensive submarine elevation on the globe. In their full extension they occupy six degrees of longitude and nearly ten degrees of latitude, with a depth of water on them varying from 10 to 160 fathoms, but averaging 40 fathoms. The herring fishery has been almost neglected, though the seas swarm with that fish, nor is the salmon fishery more energetically prosecuted. The seal fishery, however, is extensive, and, next to the cod fishery, the most valuable.

11. As before stated, nine tenths of the inhabitants are engaged one way or another in the fisheries; but of these many unite the businesses of farmer and fisherman, or fisherman and mechanic. On an average of years there are employed 341 vessels in the seal fisheries, and 80 in coast and bank fisheries, with 10,080 boats engaged in the cod fishery, which, with the necessary apparatus of seines and nets, stages, vats, etc., are valued at two million and a half dollars. The average annual value of the products of these fisheries is estimated at six million dollars. Among the products are about 1,000,000 quintals of cod-fish, 5,000 tierces of salmon, 20,000 barrels of herrings, 500,000 seal skins, 6,000 tons of seal oil, 4,000 tons cod oil, etc. In 1850 the quantity and value of the staple products exported were—dried fish 1,089,182 quintals, valued at $2,558,251; oil 2,636,800 gallons, valued at $1,487,654; seal-skins 440,828, valued at $318,480; salmon 4,600 tierces, valued at $44,160; and herrings 19,556 barrels, valued at $46,939. The total value of the exports in the same year was $4,683,696, and of imports, chiefly articles of consumption and equipment, $4,163,116.



COD FISHING.

12. The Colony is divided into nine electoral districts, and the population of which, in 1845, amounted to 96,295, viz., 52,064 males and 44,231 females, was distributed as follows:

Districts.	Popula.	Districts.	Popula.	Districts.	Popula.
Bonavista Bay	4,227	Ferryland	4,370	St. John's	25,196
Burin	4,358	Fortune Bay	5,100	Trinity Bay	8,801
Conception Bay	28,026	Placentia and St. Mary's	6,473	Twillingate and Fogo	6,744

Since the year above represented the population has largely increased, and is now (1855) estimated at 120,000. The official estimate for 1851 was 101,600.

13. The aborigines of Newfoundland, supposed not to be numerous, are remarkably shy of intercourse, confining themselves wholly to the interior, with which settlers have little or no communication. A large proportion of the colonists are natives of Ireland and of the islands of Guernsey and Jersey, and their descendants; but many are also from other parts of the United Kingdom. The people have retained the habits of their old country in a greater degree than in other North American settlements.

14. The colonial government is administered by a governor, appointed by the crown, and an executive council of nine members, nominated by the governor. The legislature consists of a council of nine members, and an assembly of 30 members, elected by the people. The elective franchise is vested in all males after one year's residence in the Colony. Formerly, and until 1854, the executive and legislative councils were one and the same, but in that year were separated and the system of responsible government established. Justice is administered according to English law. The colonial revenue in 1851 amounted to $319,583, and the expenditures to $291,788. The public debt amounted to $414,876.

15. Elementary schools are established throughout the island, and there are also numerous schools established by the Newfoundland and British North American School Society, and several grammar schools and academies supported by the local government. The most perfect toleration is here extended to all religious denominations. More than half the inhabitants are Roman Catholics, and about a third belong to the Church of England; the remainder are chiefly Wesleyan Methodists.

16. St. John's, the capital of the Colony, is the most eastern sea-port of North America, being only 1,640 miles from the west coast of Ireland. Latitude 47° 33′, and longitude 52° 43′. The harbor is one of the best, perfectly safe, easy of access, and well defended. The town is situated on an acclivity, and consists mainly of one street. It is lighted with gas, and well supplied with water brought from a pond on an adjoining eminence. The principal public buildings are the Government House, the House of Assembly, the Catholic Cathedral, a lunatic asylum, etc., and nine churches. This city is the depôt of the greater portion of the foreign trade of the Colony. Its trade consists chiefly in supplying the fishermen with clothing, provisions, and fishing and hunting gear. During the spring season the harbor is thronged with merchant vessels laden with dry goods, salt, provisions, various manufactures, wines, etc. The export fish trade commences in August, and is continued through the winter. The fish is chiefly exported to Spain and Portugal, Italy, the West Indies, and Brazil. Besides its fisheries, St. John's is largely engaged in sealing, and there are in the city several industrial establishments, but none on a large scale, except a factory for the manufacture of nets. Population 22,000. Placentia, on the west coast of the peninsula, extending from the southeast side of the island, and St. Mary's, on the west side of St. Mary's Bay, are also sea-ports, but comparatively little frequented; and the shores of Conception Bay and other tracts in this part of the island contain numerous small and thriving fishing villages and hamlets; but excepting within the limits of this peninsula there is no settlement—nor even a single house—at a greater distance than a mile or two from the coast.



ST. JOHN'S, NEWFOUNDLAND.

17. The coast of Labrador, on the opposite side of the Strait of Belle Isle, is attached to Newfoundland for civil purposes, and has been so since 1808. This vast country, inhospitable in climate, and uninviting, is inhabited by Esquimaux and Moravian missionaries, in all about 8,000 or 10,000. Producing nothing that can support life, this is one of the most barren and desolate of countries: but as if in compensation for these disadvantages, the sea in its vicinity forms one of the most valuable fisheries in the world.

18. Newfoundland was early visited by Norwegian and Icelandic navigators. Its discovery by Cabot, who named it "Prima Vista," dates only from 1497. It was subsequently frequented for its fisheries by Portuguese, Spanish, and French. The island was colonized by British subjects under five charters granted by the crown at various times: the first in 1578, by Queen Elizabeth to Sir Humphrey Gilbert; the second, in 1610, by James I. to Lord Northampton, Sir Francis Bacon, and certain merchants of London and Bristol; the third, to Sir George Calvert, of a tract of land called the Province of Avalon; the fourth, to Lord Pembroke, Lord Holland, and the Marquis of Hamilton, specially reserving to the grantees the rights of fishing, salting, and drying fish; and the fifth, in 1635, by the Star Chamber to certain merchants and traders. In 1663 Charles I. issued instructions to his lord-treasurer, containing regulations "for the governing of his majesty's subjects inhabiting in Newfoundland." After a series of struggles for possession between France and England, exclusive sovereignty over the island, subject to certain rights reserved to France, was ceded to Great Britain by the treaty of Utrecht in 1713, subsequently ratified by the treaty of Paris in 1763, and confirmed by the treaty of Versailles in 1783. From the period of the cession, commissions, giving powers to various merchants, were issued at various times; but it was not till 1728 that the first regular governor was appointed. In 1832 a constitution was granted to the Colony, which was amended in 1842 and 1847, and remodeled in 1854.

19. St. John's being the nearest American port to Europe, and directly in the track of

steamers plying between Great Britain and the United States, it has been made a call-station of one of these lines, and has also been connected by telegraphic wire, *via* Cape Ray, with the telegraphic system of the United States and the British continental colonies. By means of these intelligence between Europe and America is conveyed with great rapidity. But it has also been essayed to lay a submarine cable between St. John's and Valentia Bay, in Ireland, and though the first effort in 1857 failed to accomplish so desirable a result, there can be no doubt of ultimate success in the undertaking. This completed, the daily news of the countries on both sides the Atlantic will be reciprocally transmitted, and be known on the opposite shores almost simultaneously.

[*Weights and Measures.*—British Imperial System. *Money.*—Colonial pound (£ currency) = $4 00.]



ST. GEORGETOWN, BERMUDA.

BERMUDA, OR SOMERS' ISLANDS.

1. THE BERMUDA ISLANDS, a group in the Atlantic Ocean, 580 miles southeast of Cape Hatteras, in North Carolina, and between latitudes 32° 14′ and 32° 25′ north, and longitudes 64° 38′ and 64° 52′ west, constitute an important colony and naval and convict station of Great Britain. They lie southwest to northeast, based on the edge of a bank stretching in the same direction 23 by 13 miles, but occupy only a space of about 18 by 6 miles, though said to be about 365 in number. Area 19.4 square miles.

2. Viewed from the sea, the Bermudas appear to have but a trifling elevation compared with the bold and lofty aspect of many of the West India Islands. The highest land, indeed, does not exceed 200 feet above the sea-level, and the surface is very irregular. The principal islands (St. George's, Ireland, St. David's, Somerset, Paget's, Longbird, and Smith's), together with the minor islands, lie in such a manner as to form several capacious and deep bays, which, however, are difficult of ingress or egress.

3. St. George's Island, the military station of the Colony, about three miles long and at no part exceeding half a mile wide, lies at the entrance of the only passage for ships of burden. The harbor, the entrance to which is narrow, is said to be one of the finest in the world, and is completely land-locked. The naval dock-yard is situated at the west end of Ireland Island, and distant about 15 miles from St. George's. This island is about one mile in length, and perhaps a quarter broad, and is nearly all occupied by the public buildings. Boaz Island, connected with this by a bridge completed in 1849, is the site of the convict establishment.

4. These islands are all strongly fortified, and where not, the reefs and rocks that lie in their neighborhood certainly do away with the necessity of artificial works. The Bermudas are, in fact, the Gibraltar of the West. On three sides, north, west, and south, they are inclosed by formidable coral reefs and rocks, nearly all under water, and extending in some parts 10 miles from the islands—the only reefs of this description occurring in the whole expanse of the ocean.

5. The climate is delightful, a perpetual spring clothing the fields and trees in verdure. Severe thunder-storms, however, frequently occur; and when the south wind prevails the atmosphere becomes charged with excessive humidity. The soil is generally of a reddish brown color, and in some places, as at Ireland Island, bears strong marks of oxyd of iron. Round the coasts there are some districts with a strong tenacious blue clay; in others a micaceous kneadable brick earth, and again an argillaceous soil with luxuriant pasturage. The cedar grows to a great height, and would seem in many parts to spring from the bare rock. The palmetto is also indigenous; and all the fruits and vegetables of the northern section of the tropics thrive well.



BERMUDA ISLANDS.

6. The Bermudas are divided into nine parishes, of nearly equal extent, and in 1851 contained 11,092 inhabitants, distributed as follows:

St. George's	1,891	Paget's	1,028
Hamilton	1,094	Warwick	983
Smith's	514	Southampton	917
Devonshire	784	Sandys	1,636
Pembroke	2,235		

—of the total the whites numbered 4,669—1,965 males and 2,704 females, and of the colored 6,423—males 2,832 and females 3,591. Neither the military nor convicts are included in this census. The great disproportion between males and females is accounted for by the numbers engaged in maritime employments. In 1826 the population was 8,470; in 1836, 8,862; in 1843, 9,930; in 1851, 11,092, and may now (1856) be 12,000.

7. The labor of the inhabitants is employed chiefly in agriculture, commerce, and the fisheries. The agricultural crops in 1850 consisted of—sweet potatoes, 24,322 bushels; Irish potatoes, 24,946 bushels; carrots, 4,346 bushels; turnips, 7,420 bushels; onions, 838,070 pounds; garden vegetables, 256,136 pounds; tomatoes, 19,120 pounds; arrow-root, 854,329 pounds; Indian corn, 924 bushels, and barley, 269 bushels, etc. The quantity of livestock maintained is small, and dairy produce sufficient only for the wants of the inhabitants. Domestic fowls are abundant, especially ducks; and during the summer numbers of turtle are taken. The adjoining seas are stored with various kinds of fish, and whales are

UNITED STATES
OF AMERICA.

14,435,100 of Nature.

SCALE OF STATUTE MILES 69.16 to 1°

0 50 100 200 300 400

200 Geographical or 230.53 Statute Miles to one inch.

EXPLANATIONS

The average annual temperature is shown by isothermal lines, crossing the map ——75°——

Mountain Chains, are represented thus ——o——
the broader the line, the greater the elevation.
The highest points are marked with circles.
The figures attached to the names of mountains Passes, Towns, &c. indicate their elevation above tide water in feet. The coloring shows the Atlantic & Pacific Slopes the basin of the Mississippi &c.
The names of the chief productions of each country are inserted thus Sugar, Hemp *&c. The localities where metals are found are marked thus* Gold, Copper.

HYETAL OR RAIN CHART,
OF THE UNITED STATES.

The figures give the Average annual precipitation in inches.

Entered according to Act of Congress, in the Year 1858 by J. H. Colton & Co. in the Clerks Office of the District Court of the United States, for the Southern District of New York.

UNITED STATES OF AMERICA.

PROFILE OF THE UNITED STATES ON LAT. 42° 10' N. FROM THE ATLANTIC TO THE PACIFIC OCEAN.

PROFILE OF THE UNITED STATES ON LATIT. 30° N. FROM THE ATLANTIC TO THE PACIFIC OCEAN.

Entered according to Act of Congress, in the Year 1858, by J. H. Colton & Co. in the Clerks Office of the District Court of the United States, for the Southern District of New York.

occasionally taken between March and June. Many small cedar vessels are built here; and another important branch of industry is the plaiting of straw and mid-rib of the palmetto. The principal articles of export are arrow-root, potatoes, and onions. The value of imports for the year ending 5th January, 1854, was £120,387, and of exports £25,563. The Colony owned 42 vessels, having a burden of 2,952 tons. The imports are chiefly supplies for the army and naval forces stationed here, and for the convict establishment on Boaz Island. Regular steam navigation is kept up between the Bermudas, Halifax, N. S., New York, and the West Indies.

8. The legislature consists of a governor, council, and assembly. The council is composed of ten members and a president, nominated by the governor; and the house of assembly of 36 members, returned by the nine tribes or parishes into which the island is divided. The ordinary revenue for 1854 amounted to £15,851, and the expenditures to £16,388; a parliamentary grant covering the deficit. The military expenditure in the year 1850 was £67,354. The islands contain 9 churches, and 5 chapels for dissenters; and with regard to the inhabitants, 9,332 are members of the Church of England, 519 Presbyterians, 1,018 Wesleyan Methodists, 109 Roman Catholics, and 113 other religions. There are 24 public or free schools, principally supported by different societies in England and by funds under the control of the bishop of Nova Scotia, in whose diocese the Bermudas are included; and besides these there are 25 private schools. The number of convicts at the depôts in 1850 was 1,566, and the cost of their maintenance for the year £33,211.

9. A small dock-yard, formerly maintained at St. George's, has been removed to Ireland Island, on which large sums have been expended in order to render it a strong post for a naval and military depôt. Between 1838 and 1848 there was spent in the public works upward of £288,000, of which £150,720 was for a breakwater. The works include a steam-factory, a victualing office, store-houses, hospitals, workmen's dwellings, etc. Besides those named, defensive works have been constructed on St. George's, Main, Boaz, and Ireland islands, the cost of which has been upward of £150,000; and a causeway, constructed by convict labor, has been built to connect Walsingham and Longbird islands. The ship channels have also been improved.

10. There are in the Bermudas two towns, each of which has its mayor and civic officers—St. Georgetown, on the island of that name, and Hamilton, on Bermuda Island. Both towns are well-built, of white stone. St. Georgetown, which is the capital, is the finer of the two, and contains a new government-house, jail, lunatic asylum, etc. There are also several settlements or villages.

11. In 1593 there was wrecked on these islands a French ship, on board of which was one Henry May, who afterward wrote an account of the Bermudas in English. In 1609 Sir George Somers was driven on the islands in the course of a voyage to Virginia; and on this account the Virginia Company claimed them, and sold their right to a company of 120 persons, who, having obtained a charter from the king in 1612, sent out 60 settlers with a governor. The colony settled on George's Island. In 1619, the islands having become famous for their beauty and salubrity, many of the nobility purchased plantations, and their cultivation was much encouraged. The number of white inhabitants at this time amounted to about 1,000. On the 1st August, 1620, the general assembly was instituted, and for many years hence the islands prospered. During the civil wars many persons of character and opulence took refuge in the Bermudas, and the population rapidly increased, and is supposed to have been about 10,000. These islands have always remained in possession of the British, though toward the close of the American Revolution, Washington had an eye to their capture, to make them a station for war vessels for the annoyance of the West India trade, as the islands lie in the homeward-bound track. At the present time their chief importance is their fine location and adaptedness for military purposes.

FRENCH FISHERY ISLANDS.

1. The French possessions in North America consist of the small islands of St. Pierre, Grand Miquelon, and Petit Miquelon, which lie south of Newfoundland. St. Pierre, the most southerly and smallest of the islands, is rocky and scant of vegetation. The heights attain in some parts 500 feet. In the flatter parts ponds and marshes are frequent. Area about 10 square miles. The chief town of the same name, on the southeast coast, has excellent roads, in which large vessels find good anchorage. Grand Miquelon contains 40 square miles, and Petit Miquelon or Langley Island 30 square miles. Both these islands are situate at the mouth of Fortune Bay. They are well wooded. The largest of the two is in latitude 47° north, and longitude 56° 20′ west; the smaller, immediately south, being separated only by a narrow channel. Population 2,226.

2. The almost sole occupation of the inhabitants of these islands is fishing. They are under a governor who resides at St. Pierre. The trade consists altogether in the export of fish and in the importation of supplies for the navy and fisheries. These islands, indeed, supply France with the greatest portion of its cod-fish, the taking of which is encouraged by a liberal bounty. About 400 vessels, with a tonnage of 50,000 or 60,000 tons, are employed in the French fisheries, and about 12,000 men. These of course are not resident. The take of fish averages about 400,000 metrical quintals, but this includes the products of the Great Bank and other stations.

3. Such are the French possessions in North America—three small islands. Formerly that nation owned nearly one half of the whole northern peninsula—the present British possessions and the valley of the Mississippi. Newfoundland passed from French authority in 1713; Cape Breton and Prince Edward's Island in 1745; Canada and Nova Scotia in 1763, and also in the latter year the immense territory west of the Mississippi. Louisiana, however, was restored in 1801, but in two short years it again lapsed, and became by purchase the property of the United States. The islands above noticed were secured to France in 1763 by the treaty of Paris.

UNITED STATES OF AMERICA.

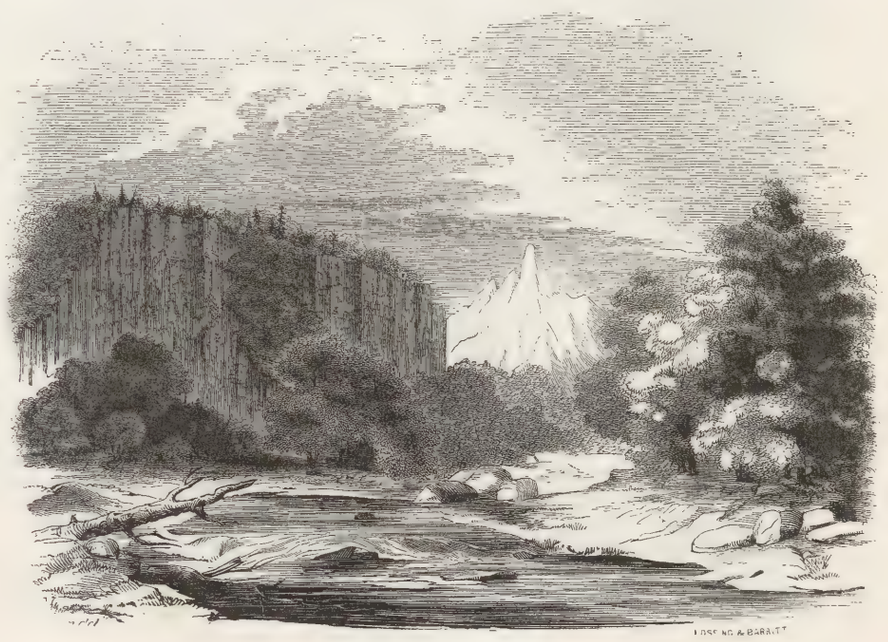
1. The United States occupy the middle and temperate region of North America, between latitudes 24° and 49° north, and longitudes 67° and 125° west; and extend from the Atlantic to the Pacific, and from the British Possessions on the north to the Gulf and Republic of Mexico on the south. The area of this vast territory is estimated at 2,963,666 square miles.

2. The frontier line on the ocean, including bays, sounds, etc., measures 12,609 miles, of which 6,861 miles represent the Atlantic coast, 3,467 miles the Gulf coast, and 2,281 miles the Pacific coast. The line toward the British Possessions measures 3,303 miles, and that toward Mexico 1,456 miles. The shore-line of rivers to the head of tide-water, and including both banks, is stated at 49,065 miles, and that of the northern lakes within the United States territory, including bays, etc., is 3,620 miles. These facts are important elements in determining the commercial facilities of the country.

3. On the Atlantic and Gulf of Mexico the shores are generally low and shelving; on the Pacific, on the contrary, they are mostly bold and rocky. Their indentations are comparatively few and of no great magnitude; but are more numerous on the east than on the west side of the continent. The most important on the Atlantic are—Passamaquoddy Bay, between New Brunswick and the State of Maine; Massachusetts Bay, between capes Ann and Cod; Long Island Sound, between the island so called and the State of Connecticut, and in connection with it the noble Bay of New York; Delaware Bay, commmencing between capes May and Henlopen, and penetrating far into the interior between the States of New Jersey and Delaware; Chesapeake Bay, opening sea-ward between capes Henry and Charles, and stretching north for 200 miles between Maryland and Virginia; and Albemarle and Pamlico sounds on the coast of North Carolina. The Gulf of Mexico is an immense indentation of the Atlantic, but contains no sub-indentations of any consequence. The Pacific coast is also deficient in bays, but possesses in that of San Francisco one of the largest and finest natural harbors in the world.

4. The territory of the United States is traversed by two principal chains of mountains, the Alleghanies on the east side, and the Rocky Mountains on the west. These divide the country into three distinct geographical regions: the Atlantic slope, from the Alleghanies to the ocean; the Valley of the Mississippi, between the Alleghanies and the Rocky Mountains; and the declivity from the Rocky Mountains to the Pacific.

5. The Alleghanies are less a chain of mountains than a long plateau, crested with several



ROCKY MOUNTAIN SCENERY.

chains, separated from each other by wide and elevated valleys. East of the Hudson the mountains are chiefly granitic, with rounded summits, often covered at their tops with bogs

and turf, and distributed in irregular groups without any marked direction. Some peaks of the Green Mountains in Vermont, and of the White Mountains in New Hampshire, rise to the height of 5,000 to 6,400 feet above the sea-level. After passing the Hudson, the structure of the mountains seems to change. In Pennsylvania and Virginia they assume the form of long parallel ridges, varying in height from 2,500 to 4,000 feet, and occupying a breadth of 100 miles. In North Carolina the highest culmination is 6,941 feet; but in Georgia and the northern part of Alabama, where they terminate, they again lose the form of continuous chains, and break into groups of isolated mountains, touching at their bases, some of which attain a considerable elevation.

6. The Rocky Mountains are on a much grander scale than the Alleghanies. Their base is 300 miles in breadth, and their loftiest summits, covered with eternal snow, rise to the height of 10,000 to 18,000 feet. These vast mountains may be considered as a portion of the Cordillera, which traverses western America from Cape Horn to the North Sea. They are distant from the Pacific from 500 to 600 miles, but between them and the coast several minor ranges intersect the country. The Maritime range, in which the highest culminations of North America occur, runs almost parallel to, and but a comparatively short distance from, the shores of the Pacific Ocean, and is seldom broken through or in any part subsides throughout its whole length.

7. The immense valley included between the Rocky Mountains and the Alleghanies is intersected by the Mississippi River, which runs from north to south all through the United States. The country west of this river, with partial exception, is yet a wilderness, inhabited by roaming Indians, and beyond the limits of the organized States the whites have scarcely a settlement; but the country east of this is thickly populated, and in a forward state of development.

8. The most remarkable feature of the United States, however, is the low plain, from 50 to 100 miles wide, which extends along the Atlantic coast. Beyond this plain the land rises toward the interior, till it terminates in the Alleghanies. The rest of the country east of the Mississippi is agreeably diversified. The soil of the low country, except along the watercourses, is sandy and comparatively unproductive; but the remainder has a strong fertile soil, capable of supporting a dense population.

9. The Pacific section is a highly varied country, abounding in wild and majestic scenery, and traversed by magnificent rivers. Much, however, of its interior is desert, and will probably never be inhabited by civilized man. The great California desert, indeed, is one of the dreariest regions of the world, the solitude being relieved only by a few oases in the neighborhood of streams or on the borders of its numerous lakes.

10. With the exception of Michigan and Champlain, none of the great lakes of North America lie wholly within the territory of the United States. The others are on the northern borders, along which they form a connected chain extending through a distance of nearly



AMERICAN AND HORSE-SHOE FALLS (NIAGARA)—FROM PROSPECT POINT.

1,200 miles. The first in this chain is Lake Superior, the largest body of fresh water on the globe; this empties into Lake Huron; Huron into Erie; Erie, its waters tumbling over the cataract of Niagara, into Ontario, and Ontario into the St. Lawrence. Lake Champlain lies between New York and Vermont, and discharges its waters through the Sorel into the St. Lawrence. It is computed that these lakes contain 14,000 cubic miles of water—a quantity more than five sevenths of all the fresh water of the earth. The extent of the country drained by them, from the northwest angle of Superior to the St. Lawrence, including also the area of the lakes themselves, is estimated at 335,515 square miles, of which 112,649 square miles are land surface within the United States.

11. The rivers of the United States, exclusive of the St. Lawrence, may be divided into four classes—first: the Mississippi and its wide-spread branches, which drain off the waters of the whole country included between the Alleghanies and Rocky Mountains; second: the rivers east of the Alleghany Mountains, which, rising on their declivities, water the Atlantic plain and flow into the Atlantic Ocean; third: the system of rivers flowing into the Gulf of Mexico, which may be subdivided into those flowing from the southern slope of the Alleghanies, and those having their sources in the northwestern highlands of Texas; and, fourth: those streams on the west of the Rocky Mountains which flow into the Pacific Ocean.

12. The Mississippi rises in Minnesota Territory, west of Lake Superior, in latitude 47° 47′ north, amid lakes and swamps, dreary and desolate beyond description, and after a southeasterly course of about 500 miles reaches the Falls of St. Anthony, where it descends perpendicularly 16 feet, and where are numerous rapids. From these falls it pursues first a southeasterly, then a southerly direction; and after forming the boundary of Minnesota, Iowa, Missouri, and Arkansas on the west, and of Wisconsin, Illinois, Kentucky, Tennessee, and Mississippi on the east, passes through Louisiana, and discharges itself through an immense and complicated delta into the Gulf of Mexico. It is nearly 3,200 miles long, and is navigable, with few obstructions, to the Falls of St. Anthony. Its principal tributaries are—on the east: the Wisconsin, the Illinois, the Ohio, and the Yazoo; and, on the west: the Minnesota, the Des Moines, the Missouri, the Arkansas, and the Red River.



FALLS OF ST. ANTHONY.

13. The principal rivers of the Atlantic slope are—the Connecticut, the Hudson, the Delaware, the Susquehanna, the Potomac, James River, the Savannah, etc. These are fine navigable rivers, and with their constituents and tributaries drain the whole slope.

14. The rivers falling into the Gulf of Mexico are—the Appalachicola, the Mobile, the Sabine, Trinity, Brazos, Rio Grande, etc.—the first two rising in the southern declivities of the Alleghanies, and the others from the highlands of Texas and New Mexico.

15. The rivers flowing from the mountains to the Pacific Ocean consist of—the Columbia, the Sacramento and San Joaquin, the Buenaventura and the Colorado and Rio Gila, the latter two discharging themselves into the Gulf of California.

16. Immense alluvial tracts occur along the Gulf of Mexico, commencing at the Rio Grande and covering a wide belt in the State of Texas, the whole of Louisiana, considerable portions of Mississippi and Alabama, and the whole of Florida. Similar tracts, but narrower, stretch north along the Atlantic as far as the northeast extremity of Long Island, but are partially interrupted by tertiary groups, which belong to the eocene or earliest geological period in parts of Georgia and South Carolina, or to the miocene or less ancient period in North Carolina, Virginia, and Delaware. In the same States, and more especially in the north and west of New Jersey, the cretaceous system is seen in isolated spots or narrow strips. The chief development of this system, however, occurs to the north of the alluvial tracts of the Gulf, where it forms the prevailing formation of large areas in Arkansas, Tennessee, Mississippi, and Alabama.

17. The alluvial and tertiary tracts along the Atlantic, already referred to, are not followed in like manner by the cretaceous system, but by a large development of what have been called hypogene rocks, consisting of gneiss, etc., which stretch north from Alabama and the west part of Georgia along the main chain and eastern slope of the Alleghanies, become greatly narrowed in Virginia, Maryland, and Pennsylvania, but afterward widen out in Massachusetts, and then cover a large part of northern New York, and the whole, or almost the whole, of Vermont, New Hampshire, and Maine. From Virginia northward to Massachusetts the granite and gneiss inclose narrow belts of new red sandstone, pierced by masses of trap. These seem to be the only spots in the United States where either new red sandstone or trap occurs.

18. In the Alleghanies, west of the granite and gneiss, the silurian system, forming the lowest series of the sedimentary rocks, begins to be developed. It commences on the banks of the Tennessee, where it turns west and stretches in a narrow belt, but not without interruption, till it reaches the frontier of Vermont. It belongs to the lower part of the system, and consists chiefly of what is known by the name of Trenton limestone.

19. This formation is succeeded west by narrow strips of old red sandstone and occasional belts of carboniferous limestone, giving indication of the approach to the true coal measures. These, accordingly, immediately occur, and on a scale of almost unexampled magnificence, and form an immense coal-field, which stretches continuously from south-southwest to north-northeast, between the parallels of 35° and 42°, for a distance of more than 600 miles. Both south and north it tapers to a point, but gradually widens out from both extremities

till on the 40th parallel it has a width of 170 miles. The area of the whole field is moderately estimated at 63,000 square miles. The coal occurs in numerous thick beds, partly bitu-



INTERIOR OF A COAL MINE IN PENNSYLVANIA.

minous and partly anthracite, and is accompanied by valuable seams of iron ore, and the limestone necessary for smelting it.

20. The old red sandstone bounding the coal-field on the east widens out so as to occupy an extensive area on the north, and is then continued south in a narrow belt, so as to form the greater part of its outer western edge. Still farther west, chiefly in the States of Ohio and Indiana, this old red sandstone is succeeded by rocks of the silurian system, belonging, with few exceptions, to the upper series, but again appears in a very remarkable shape, forming, along with an upper belt of carboniferous limestone, an oval almost mathematically exact, and inclosing, as with a kind of outer rim, the great coal-field of Illinois. This coal-field, which consists of horizontal strata, with numerous rich seams of bituminous coal, comprehends parts of the States of Illinois, Indiana, and Kentucky, and has an area of not much less than 50,000 square miles. Beyond this field the rocks of the silurian system are continued into Missouri, and both there and in the north of Arkansas are seen inclosing a large area of granite and gneiss. The country west to the mountains has been little explored, and the space left blank in the geological map remains to be filled up by future investigators.

21. The remarkable peninsula of Michigan, washed by the lake of the same name on the west, and by lakes Huron and Erie on the east, consists of three distinct formations—first, the upper silurian, bounding it on the north and southeast and terminating it on the north; next, the old red sandstone, stretching round on all sides so as to inclose a large heart-shaped nucleus; and lastly, this nucleus itself, consisting of a thin rim of carboniferous limestone, which forms the basis of a third coal-field of smaller dimensions compared with those already noticed, but large compared with most European coal-fields, having a length, north and south, of 150 miles, with a medium breadth of not less than 90 miles, and containing an area of about 12,000 square miles.

22. To the northwest of Lake Michigan, and to the south and west of Lake Superior, tracts of granite and gneiss, rich in copper, occur. The peninsula of Kewenaw, extending out into the lake some 70 miles, and elevated in its center from 500 to 600 feet, is filled with copper rock, and the same formation extends southwest from the peninsula for an equal dis-



COPPER HARBOR, ON LAKE SUPERIOR.

tance. The metal occurs both in veins and in enormous boulders, weighing several tons. From this source the ancient inhabitants of Ohio, the mound-builders, whose history is lost, derived their supplies; and even at the present day the miners find the stone hammers and other implements used by them in their operations.

23. That large blank existing in the map, in regard to the more western territories, has begun to be filled up in the southwest, toward the shores of the Pacific, in consequence of the discovery of the vast auriferous region which covers large areas in California and Oregon. As far as has yet been ascertained, this gold region appears to occupy an area of 500 miles long by 40 to 50 miles wide; but this area will probably widen out as the different districts of the territory are more accurately explored. The matrix of the metal is quartz, existing in the form of veins or rocky masses, embodied in granite and primitive schists. These accordingly appear to be the prevailing formations. As yet, however, gold has not been found to any great extent *in situ*, and has been chiefly obtained by collecting it, by various mechanical processes, from the superficial debris which floods and torrents have brought down from the mountains. Besides gold, cinnabar is an abundant product of this remarkable region; and other metals, as copper, iron, and lead, undoubtedly exist in the same districts in quantities sufficient to yield productive returns.

24. Otherwise than as developed by the above cursory view of the geological structure of the country, the United States are rich in all the minerals useful in the arts and manufactures. Wisconsin, Iowa, and Illinois have inexhaustible supplies of lead ore; almost every State has abundance of iron in one or more of its various forms, but more especially Pennsylvania, Missouri, and Upper Michigan. Copper is also abounding in eastern Tennessee; salt is found everywhere, and is largely manufactured in the western districts of New York and Virginia, etc., and in Utah, about the Great Salt Lake, is found in inexhaustible profusion. In marble and limestone and other building-stone, roofing-slate, potter's clay, etc., few countries in the world are more amply supplied.

25. A vast country, stretching over twenty-five degrees of latitude, and exhibiting all possible varieties of surface—low swampy shores, boundless alluvial plains, swelling hilly regions, elevated arid deserts, and lofty mountain chains—must obviously possess not one climate but a number of climates, differing greatly from each other, and often exhibiting most remarkable contrasts. The only one feature which can be said to be common to all the



APPROACH TO THE GREAT SANDY DESERT.

climates of the United States is inconstancy. The transitions from cold to heat and humidity to drouth take place so suddenly, and to such an extent, that even in the Central States a change of 25 or 30 degrees in the thermometer in the course of a few hours is by no means uncommon. On the northern frontier these changes become still more remarkable, and, on the other hand, at the opposite extremity, are so much diminished that the thermometer in Florida is almost stationary throughout the year, and at no time varies so as to give an annual range of more than twelve degrees.

26. Compared with that of Europe, the climate of the United States exhibits very remarkable differences. The isothermal line, which passes through Belgium (latitude 51°) after crossing the Atlantic, is found at Boston (latitude 42° 30′), and that which passes between Rome and Florence (latitude 43°) is found in the United States, at Raleigh (latitude 36°). In the north, between latitudes 42° and 45°, nearly on the parallels of Rome, Toulon, Padua, and Bordeaux, the winter is so severe for three or four months that the snow is abundant enough for sleighing, and the ice of the rivers strong enough to be crossed by horses and wagons. In Philadelphia (latitude 39° 56′) the mean annual temperature is 54° Fahr.; whereas in Naples (latitude 40° 50′) it is 63°—in other words, the American town, which, from having a lower latitude, ought to have a higher annual temperature than the European town, is about nine degrees colder. The ranges of temperature are still more remarkable than the annual averages, and hence it has been said, and with great truth, that while New York has the summer of Rome, it has the winter of Copenhagen.

27. The prevailing winds of the United States are the northwest, southwest, and northeast. The northwest wind, blowing from the frozen regions over high mountains and plateaux, prevails in winter, and though piercingly cold, is usually dry until it reaches the shores of the Atlantic, where, meeting with dense vapors, it condenses them into snow, hail, or rain. The southwest wind prevails in summer, particularly on the west side of the Alleghanies, and in the basin of the Mississippi, where, indeed, it blows more or less at all seasons, except at the winter solstice. The northeast wind arrives on the American coast charged with the vapors collected in its course from the Arctic and across the Atlantic oceans, and immediately

deposits them in cold, dense fogs or heavy showers. The average fall of rain is estimated at 37 inches, whereas in the northwest of Europe it is only 31 inches; and yet in the United States, as the showers, when they do fall, are more copious, and perhaps also more continuous, the number of rainy days is fewer.

28. So various are the soils of this section of America that no general remarks can describe them. The rich alluvions of the valley of the Mississippi and along the southern coasts are the extreme on the one hand, and the barren plains at the east base of the Rocky Mountains that on the other hand. On the whole, however, it is believed that no other portion of the world is endowed with a greater comparative area of fertile lands or lands capable of agricultural improvement. The whole middle section is one vast agricultural country, and is being rapidly filled up by an industrious population, which will eventually develop it to its utmost capacity. In New England the lands are rugged and comparatively unproductive. In the hilly region of the Alleghanies, generally, they are better adapted to grazing than proper agriculture. The valleys west of the Rocky Mountains, and especially those beyond the Sierra Nevada, are among the most fertile in the world. In other parts where agriculture is impossible or unprofitable, there is generally ample compensation for the drawback in the mineral productions of which they are possessed.

29. No other country can boast of so many species of noble forest trees. East of the Rocky Mountains the prevailing growths are the oak, pine, chestnut, walnut, poplar, maple, elm, magnolia, cypress, etc. Many of these attain an immense height and growth, and all are useful to man. The white pine frequently attains the height of 200 feet, and the poplar or tulip-tree, one of the noblest in the American forests, sometimes attains a height of 120 to 130 feet, with a diameter of 7 to 8 feet. From the sugar-maple is obtained a delicious domestic sweetening. The forests of the Pacific region are magnificent, and surpass those of all other countries in the magnitude of their numbers. The red-wood (a species of cypress) of California has sometimes a diameter of 40 feet, and frequently of from 20 to 30 feet; and pines growing on the mountain slopes of Oregon attain not unfrequently a height of nearly 300 feet, with diameters varying from 8 to 20 feet.



GRIZZLY BEAR.

30. Among the wild animals of the United States are the moose deer or elk, the caribou or reindeer (which is now seldom seen), the buffalo, the black bear, the panther, the wolf, and the wild-cat; the grizzly bear and the goat or sheep peculiar to the Rocky Mountains, and the fox, beaver, musk-rat, marmot, prairie dog, squirrel, rabbit, weasel, skunk, opossum, raccoon, etc. Among birds are the golden and bald-headed eagle, the turkey-buzzard, the black vulture, hawks, wild-turkeys, grouse, pheasants, partridges, pelicans, flamingoes, cranes, spoonbills, wild-ducks, etc. The reptiles include several varieties of snakes (some of them venomous), lizards, salamanders, and in the South alligators. In the lakes and rivers and along the shores fish in innumerable varieties abound, and no other portion of the earth's surface is so abundantly supplied with crustaceous animals, oysters, turtles, etc.

31. Of the American aborigines few remain. They have vanished from the land before the march of civilization, and the European and his descendants occupy their hunting-grounds. The nations that once covered the country eastward of the Mississippi are at the present day represented by a few partially civilized tribes gathered chiefly into the Indian Territory, and numbering about 100,000 individuals. Not more than 18,000 remain near their former haunts. The whole number within the United States, including those of the plains, the Rocky Mountains, Texas, New Mexico, Utah, California, and Oregon, does not amount to more than 400,000 souls.



AMERICAN INDIANS.

32. In 1850,* the date of the last general census, the United States comprised thirty-one States, the Federal District, four organized Territories, and extensive territories occupied almost solely by the Indians. The extent and population of each of these constituents of the Union were as follows:

States.	Area, sq. m.	Population. White.	Free Col.	Slave.	Total.	Population to sq. m.	Seats of Government.
Maine	31,766	581,813	1,356	—	583,169	18.36	Augusta.
New Hampshire	9,280	317,456	520	—	317,976	34.26	Concord.
Vermont	10,212	313,402	718	—	314,120	30.76	Montpelier.
Massachusetts	7,800	985,450	9,064	—	994,514	127.50	Boston.
Rhode Island	1,306	143,875	3,670	—	147,545	112.97	Providence, etc.
Connecticut	4,674	363,099	7,693	—	370,792	79.33	Hartford, etc.
New York	47,000	3,048,325	49,069	—	3,097,394	65.90	Albany.
New Jersey	8,320	465,509	23,810	236	489,555	58.84	Trenton.
Pennsylvania	46,000	2,258,160	53,626	—	2,311,786	46.26	Harrisburg.
Delaware	2,120	71,169	18,073	2,290	91,532	43.17	Dover.
Maryland	11,124	417,943	74,723	90,368	583,034	52.41	Annapolis.
Virginia	61,352	894,800	54,333	472,528	1,421,661	23.17	Richmond.
North Carolina	50,704	553,028	27,463	288,548	869,039	17.14	Raleigh.
South Carolina	29,385	274,563	8,960	384,984	668,507	22.75	Columbia.
Georgia	58,000	521,572	2,931	381,682	906,185	15.62	Milledgeville.
Florida	59,268	47,203	932	39,310	87,445	1.48	Tallahassee.
Alabama	50,722	426,514	2,265	342,844	771,623	15.21	Montgomery.
Mississippi	47,156	295,718	930	309,878	606,526	12.86	Jackson.
Louisiana	41,255	255,491	17,462	244,809	517,762	12.55	Baton Rouge.
Texas	237,504	154,034	397	58,161	212,592	0.89	Austin.
Arkansas	52,198	162,189	608	47,100	209,897	4.02	Little Rock.
Tennessee	45,600	756,836	6,422	230,459	1,002,717	21.99	Nashville.
Missouri	67,380	592,004	2,618	87,422	682,044	10 12	Jefferson City.
Kentucky	37,680	761,413	10,011	210,981	982,405	26.07	Frankfort.
Ohio	39,904	1,955,050	25,279	—	1,980,329	49.55	Columbus.
Indiana	33,809	977,154	11,262	—	988,416	22.23	Indianapolis.
Michigan	56,243	395,071	2,583	—	397,654	7.07	Lansing.
Illinois	55,405	846,034	5,436	—	851,470	15.37	Springfield.
Wisconsin	53,924	304,756	635	—	305,391	5.66	Madison.
Iowa	50,914	191,881	333	—	192,214	3.77	Iowa City.
California	155,980	91,635	962	—	92,597*	0.59	Sacramento.
Territories.							
Minnesota	166,025	6,038	39	—	6,077	0.04	St. Paul.
Oregon	308, 52	13,067	267	—	13,294	0.07	Salem.
Utah	269,170	11,330	24	26	11,380	0.04	Fillmore City.
New Mexico	207,007	61,525	22	—	61,547	0.29	Santa Fé.
Indian	521,807	(Occupied by Indians.)				—	—
Dist. of Columbia	60	37,941	10,059	3,687	51,687	816.45	Washington City.
Grand Total†	2,986,166	16,553,068	434,495	3,204,313	23,191,876	7.90	

33. The following table classifies the population according to caste, sex, and age:

Age.	White Persons. Males.	Females.	Free Colored Males.	Females.	Slaves. Males.	Females.	Total Males.	Females.
Under 1 year	273,307	264,454	5,576	5,600	39,343	41,266	318,226	311,220
1 and under 5	1,198,746	1,160,051	24,743	24,902	227,745	282,140	1,451,234	1,417,093
5 " " 10	1,372,438	1,331,690	29,806	29,246	239,163	239,925	1,640,407	1,600,861
10 " " 15	1,225,575	1,176,554	26,061	26,247	221,480	214,712	1,473,116	1,417,513
15 " " 20	1,041,116	1,087,600	20,395	23,399	176,169	181,113	1,237,680	1,192,112
20 " " 30	1,869,092	1,758,469	35,782	41,765	288,595	282,615	2,194,469	2,082,849
30 " " 40	1,288,682	1,128,257	26,153	29,072	175,300	178,355	1,490,135	1,335,684
40 " " 50	840,222	748,566	18,199	19,741	109,152	110,780	967,573	879,087
50 " " 60	498,660	469,511	11,771	12,572	65,254	61,762	575,685	538,845
60 " " 70	264,742	256,480	6,671	7,362	38,102	39,569	309,515	300,411
70 " " 80	111,416	112,648	2,878	3,438	13,166	13,688	127,460	129,774
80 " " 90	31,243	34,403	1,106	1,512	4,378	4,740	36,727	40,655
90 " " 100	3,653	4,409	819	544	1,211	1,473	5,183	6,422
100 and upward	357	430	114	229	606	819	1,077	1,478
Age unknown	7,153	3,154	150	136	1,581	1,533	8,884	4,823
Total	10,026,402	9,526,666	208,724	225,771	1,602,535	1,601,778	11,837,371	11,854,215

—and the origin of the free population, including both white and colored, was as follows:

Class of Population.	Born in the State in which resident.	Resident in States in which not born.	Born in foreign State or country.	Birth-place unknown.	Total of each Class.
White persons	13,103,650	4,176,225	2,240,535	32,658	19,553,068
Colored persons	353,399	75,025	4,067	2,004	434,495
Grand Total	13,457,049	4,251,250	2,244,602	34,662	19,987,563

34. The first general census was taken in 1790, and has been taken at succeeding decennial periods. The results of these, and also the actual territory belonging to the Union at the time being, are shown in the following table:

Census Years.	Area,‡ sq. m.	White Persons.	Colored Persons. Free.	Slave.	Total.	Total Population.	Popula. to sq. m.
1790	820,680	3,172,464	59,466	697,897	757,363	3,929,827	4.79
1800	820,680	4,304,489	108,395	893,041	1,001,436	5,305,925	6.46
1810	1,720,250	5,862,004	186,446	1,191,364	1,377,810	7,239,814	4.21
1820	1,720,259	7,891,937	238,156	1,538,038	1,776,194	9,638,131	5.61
1830	1,787,159	10,537,378	319,599	2,009,043	2,328,642	12,866,020	7.19
1840	1,787,159	14,195,695	386,303	2,487,455	2,873,758	17,069,453	9.55
1850	2,936,166	19,553,068	434,495	3,204,313	3,638,808	23,191,876	7.90

—reducing these figures to proportions the following is the result:

Census Years.	White Persons.	Colored Persons. Free.	Slave.	Total.	Total Popula.
1790	8073	151	1776	1927	10000
1800	8113	204	1683	1887	10000
1810	8097	257	1646	1903	10000
1820	8157	247	1596	1843	10000
1830	8190	248	1562	1810	10000
1840	8317	226	1457	1683	10000
1850	8431	187	1382	1569	10000

—and the ratio of increase from period to period has been thus:

Census Years.	White Persons	Colored Persons. Free.	Slave.	Total.	Total Popula.
1790–1800	3568	8228	2796	3223	3501
1800–1810	3618	7290	3340	3758	3645
1810–1820	3412	2773	2910	2891	3313
1820–1830	3403	3420	3062	3110	3349
1830–1840	3472	2087	2381	2341	3267
1840–1850	3774	1247	2882	2662	3587

35. The distribution of the population at the several periods named over the several grand divisions of the United States, and its increase (per 10,000 souls) in each from period to period, is exhibited in the annexed tabular statement:

Divisions.	1790.	1800.	1810.	1820.	1830.	1840.	1850.
New England States: Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, and Connecticut—							
Population	1,009,828	1,233,315	1,471,891	1,659,808	1,954,717	2,334,822	2,728,116
Ratio of increase	—	2213	1934	1277	1717	1433	2207
Middle States: New York, New Jersey, Pennsylvania, Delaware, Maryland, and the District of Columbia—							
Population	1,337,456	1,820,984	2,491,938	3,212,983	4,151,286	5,118,076	6,624,988
Ratio of increase	—	3615	3685	2804	2920	2329	2944
Southern States: Virginia, North Carolina, South Carolina, Georgia, and Florida—							
Population	1,473,680	1,865,995	2,197,670	2,547,936	3,082,130	3,383,483	3,952,837
Ratio of increase	—	2662	1777	1594	2096	816	1858
South-Western States: Alabama, Mississippi, Louisiana, Texas, Arkansas, Tennessee, and Kentucky—							
Population	35,791	114,452	278,635	793,842	1,374,179	2,245,602	3,321,117
Ratio of increase	—	21978	23082	10966	7310	6341	4789
North-Western States: Ohio, Indiana, Michigan, Illinois, Wisconsin, Iowa, and Missouri—							
Population	73,077	271,195	699,680	1,423,622	2,298,390	4,131,370	6,379,923
Ratio of increase	—	27111	15800	10347	6145	7975	5443
California and Organized Territories:							
Population	—	—	—	—	—	—	184,895

* [The changes which have been effected in the political arrangement of the country since the period above noted are various and important. Oregon has been divided into the two territories of Oregon and Washington—the first occupying the portion of territory south of the Columbia River and the 46th parallel, with an area of 185,030 square miles, and the latter all north of the same line with an area of 123,022 square miles. The Indian or unorganized Territory has also been divided up, and the greater portion now constitutes the Territories of Nebraska and Kansas—the first north of 40° north latitude, containing 335,882, and the latter 114,798 square miles. Meanwhile a large territory (27,500 square miles), to which the name of Arizona is proposed to be given, has been (1854) acquired of Mexico; and is now temporarily attached to New Mexico. It may here also be stated that the territories of Minnesota, Oregon, and Kansas have framed State constitutions, and in all probability will be admitted into the Union during the present (1857–58) session of Congress, or before this work is ready for the press. In case of such events occurring, notice thereof will be made under the chapters referring to those countries.]

* Incomplete returns. † Total, including the Mexican cession of 1854, 2,963,666 square miles.

‡ The original territory of the United States, as ceded by England in 1783, amounted to 820,680 square miles. The acquisition of Louisiana in 1803 added 899,579 square miles to its extent; and by the cession of Florida (1821) the area was increased by 66,900 square miles. The admission of Texas (1845), the settlement of the Oregon question (1846), and the conquest of California, etc. (1848), added to the area 318,000, 308,052, and 522,955 square miles respectively. In 1854 a further addition of 27,500 square miles was gained from northern Mexico.

36. The population in 1855, as summed up from the results of State enumerations and estimates amounted to 27,237,510, being an increase over that of 1850 amounting to 4,045,634, or in the ratio of 17.4 per cent. in five years. About two fifths of the whole increase has been from immigration from foreign countries and the remainder the result of natural issue. This population is supposed to be distributed as follows:

Maine	641,279	North Carolina	922,979	Michigan	509,374*
New Hampshire	331,708	South Carolina	705,661	Illinois	1,242,917*
Vermont	326,592	Georgia	935,090*	Wisconsin	552,109*
Massachusetts	1,133,123*	Florida	110,725*	Iowa	325,014*
Rhode Island	166,927	Alabama	835,192*	Missouri	831,215
Connecticut	401,292	Mississippi	712,857	California	827,879
New York	3,466,212*	Louisiana	589,738	Minnesota	68,812
New Jersey	569,499*	Texas	482,837	Nebraska	4,565
Pennsylvania	2,542,960*	Arkansas	253,117*	Kansas	8,521
Delaware	97,295	Tennessee	1,107,583	Washington	5,492
Maryland	659,387	Kentucky	1,113,678	Oregon	36,187
District of Columbia	60,557	Ohio	2,311,829	Utah	88,716
Virginia	1,527,837	Indiana	1,198,783	New Mexico with Arizona	81,722

In the mean time (1850–1855) the territory of the United States has been increased by an area of 27,500 square miles by purchase from Mexico, and now includes a total area of 2,963,666 square miles. The proportion of population to territory in 1855 was, therefore, as 9.19 inhabitants to the square mile.

37. The aggregate number of "free white male persons," over 15 years of age, employed in professional and industrial pursuits, in 1850, was 5,371,876; and of these the number employed in commerce, trade, manufactures, mechanic arts, and mining was 1,596,265, or 27.72 per cent.; in agriculture, 2,400,583, or 44.69 per cent.; in labor not agricultural, 993,620, or 18.5 per cent.; in the army, 5,370, or 0.1 per cent.; in sea and river navigation, 116,341, or 2.17 per cent.; in law, medicine, and divinity, 94,515, or 1.76 per cent.; in other pursuits requiring education, 95,814, or 1.78 per cent.; in government civil service, 24,966, or 0.46 per cent.; in domestic service, 22,243, or 0.41 per cent.; and in other occupations, 22,159, or 0.41 per cent. of the whole employed.

38. The whole number of farms, plantations, etc., in the United States, in 1850, was 1,449,075; and of an aggregate extent of 1,466,455,680 acres, representing the whole area of the States and organized Territories, the land in occupation amounted to 293,560,614 acres —113,032,614 acres improved, or 7.71 per cent. of the whole acreage, and 180,528,000 acres unimproved, or 12.31 per cent. The average land to each farm was 203 acres, varying in the several States and Territories from 51 to 4,466 acres. The cash value of farms and improvements thereon was $3,271,575,426, and the average value of each farm $2,258, varying in the several States, etc., from $337 to $6,481. The value of farming implements and machinery was $151,587,638, and the average value of such on each farm $105, varying from $21 to $863.

39. The livestock, in 1850, consisted of—horses, 4,336,719; asses and mules, 559,331; milch cows, 6,385,094; working oxen, 1,700,744; other cattle, 10,293,069; sheep, 21,723,220; and swine, 30,354,213—valued in the aggregate at $544,180,516. The comparative amount of livestock in 1840 and 1850 is exhibited in the annexed:

Years.	Horses, asses, and mules.	Neat cattle.	Sheep.	Swine.
1840	4,335,669	14,971,586	19,311,374	26,301,293
1850	4,896,050	18,378,907	21,723,220	30,354,213
Increase	560,381	3,407,321	2,411,846	4,052,920
Increase per centum	12.69	22.75	12.49	15.41

The products of animals in 1849–50 consisted of—butter, 313,345,306 pounds; cheese, 105,535,893 pounds; and wool, 52,516,959 pounds. The value of animals slaughtered during the year was $111,703,142.

40. The staple food crops, according to the returns of 1840 and 1850, respectively, and the increase and decrease of each, are thus represented:

Crops.		1840.	1850.			1855 (estim.).
Wheat	bushels	84,823,272	100,485,944	*incr.*	15,662,672, or 18.46 pr. cent.	109,665,678
Rye	"	18,645,567	14,188,813	*decr.*	4,456,754, or 23.90 "	—
Oats	"	123,071,341	146,584,179	*incr.*	23,512,838, or 19.10 "	160,365,053
Barley	"	4,161,504	5,167,015	*incr.*	1,006,511, or 24.18 "	—
Buckwheat	"	7,291,743	8,956,912	*incr.*	1,665,169, or 22.83 "	—
Indian corn	"	377,531,875	592,071,104	*incr.*	214,539,229, or 56.82 "	717,812,546
Irish potatoes	"	108,298,060	65,797,896	*decr.*	4,232,016, or 39.08 "	123,892,171
Sweet potatoes	"		38,268,148			
Peas and beans	"	no returns	9,219,901		—	—

Cotton, sugar, rice, tobacco, and hemp and flax may be styled special crops. Cotton is chiefly grown in South Carolina, Georgia, Alabama, and Mississippi, and less abundantly in Louisiana, Arkansas, Texas, Tennessee, North Carolina, Virginia, Florida, and Kentucky. In these States there was, in 1850, an aggregate of 74,031 plantations, each producing over five bales. Sugar is grown chiefly in Louisiana, Florida, and Texas, in which there was 2,681 plantations. Rice is grown in South Carolina and adjoining States, and was produced on 551 plantations. Kentucky and Missouri had 8,327 hemp plantations. Kentucky, Virginia, Tennessee, and Maryland grew the bulk of the tobacco crop, on 15,745 plantations. The aggregate crops of these several staples, according to the returns of 1840 and 1850, comparatively were as follows:

Crops.		1840.	1850.			1855 (estim.).
Cotton	bales	1,976,198	2,445,793	*incr.*	469,595, or 23.76 pr. cent.	2,721,022
Sugar—cane	pounds	155,100,809	237,113,000	*incr.*	116,265,627, or 74.96 "	339,541,442
" —maple			84,253,436			
Rice	"	80,841,422	215,313,497	*incr.*	134,472,075, or 166.34 "	294,127,580
Tobacco	"	219,163,319	199,752,655	*decr.*	19,410,664, or 8.97 "	—
Hemp—dew rotted	tons	95,251	33,193	*decr.*	56,525, or 59.34 "	—
" —water "			4,678			
Flax			3,855			

The miscellaneous crops in 1849–50 comprised—hay, 13,838,642 tons; hops, 3,497,029 pounds; clover-seed, 468,978 bushels; other grass-seed, 416,831 bushels; flax-seed, 562,317 bushels; molasses, 12,700,991 gallons; silk cocoons, 10,843 pounds; wine, 221,249 gallons; beeswax and honey, 14,853,790 pounds, etc.

41. The total value of farm products, animal and vegetable, has been estimated, in 1840, at $621,163,977, and in 1850 at $994,093,842; and there can be little doubt but that the value produced in 1855, though the data for such an estimate are very imperfect, had risen to $1,200,000,000.

42. The total number of industrial establishments, including mines, manufactories, mechanic shops, fisheries, etc., in the United States, producing to the annual value of $500 and upward, on the 1st June, 1850, was 121,855; the capital invested in this branch of industry amounted to $527,209,133; the value of the raw material, fuel, etc., consumed was $554,665,038; the number of hands employed 944,991, viz., males 719,479, and females 225,512; the wages paid during the year amounted to $229,736,577; and the value of the products of the year amounted to $1,013,336,463.

43. The statistics of the principal branches of industry are as follows:

a. The production of anthracite in 1850 amounted to 3,796,808 tons, and of bituminous coal to 35,088,197 bushels, or 1,253,146 tons—together valued at $7,239,110. In the year stated, coal was mined in twelve States, having an aggregate of 507 establishments, and in these a capital of $8,340,701, and 15,103 persons were employed.

b. The iron manufactures are arranged under the three heads of pig, cast, and wrought:

Specifications.		Pig Iron.	Castings.	Wrought Iron.	Total.
Establishments	number	377	1,391	552	2,320
Capital	dollars	17,346,425	17,416,361	17,033,279	51,796,065
Raw material	value.	7,005,289	10,346,265	13,524,777	30,876,331
Hands—males	number	20,298	23,541	16,110	59,949
" —females	"	150	48	138	336
Value of products	dollars	12,743,727	25,108,155	22,629,271	60,486,153

—the total amount of pig iron manufactured was 543,755; of castings, 322,745; and of wrought iron, 278,044. The raw material used was—

Material used.		In Manufacturing Pig Iron.	In Manufacturing Castings.	In Manufact. Wrought Iron.
Iron ore	tons	1,579,309	9,850	78,787
Pig iron	"	—	345,553	251,491
Old metal	"	—	11,416	—
Blooms	tons	—	—	33,344
Mineral coal	"	645,242	190,981	538,063
Charcoal	bushels.	54,165,286	2,413,750	14,510,828

—making a total consumption of 1,667,946 tons ore; 597,044 pig iron; 11,416 old metal; 33,344 blooms; 1,374,286 mineral coal, and 71,089,814 bushels of charcoal.

c. The number of salt works was 340; capital, $2,640,885; raw material, $1,051,425; hands employed—males 2,699, and females 89; aggregate annual wages—to males $744,432, and to females $9,792; annual products, 9,763,840 bushels, valued at $2,222,745.

d. Cotton factories, 1,094; capital, 74,500,931; raw material used—cotton 641,240 bales,



PICKING COTTON.

and coal 121,099 tons, valued at $34,835,056; hands employed—males 33,150, and females 59,136; products of the year, $61,869,134.

e. Wool factories, 1,550; capital, $28,118,650; raw materials used—wool 70,862,829 pounds, and coal 46,370 tons, valued at $25,755,991; hands employed—males 22,678, and females 15,574; value of products, $43,207,545.

f. Tanneries, 6,263; capital invested, $18,900,557; value of raw material used, $19,613,237; hands employed, 21,011—males 20,909, and females 102; wages per month, $417,184; products of the year—sides of leather 12,257,940, and skins 2,653,865, together valued at $32,861,796. Also about 6,000,000 sheep, goat, and other small skins.

g. Distilleries, etc., 1,217; capital, $8,507,574; raw materials used—barley 3,787,195 bushels, corn 11,067,761 bushels, rye 2,143,927 bushels, oats 56,607 bushels, apples 526,840 bushels, hops 1,294 tons, and molasses 61,675 hogsheads; hands employed, 6,140; products—ale, etc., 1,179,495 barrels, whisky and high wines 41,364,224, and rum 6,500,500 gallons.

h. Fisheries, 1,384; capital, $8,966,044; raw material, $99,681; hands employed—males 20,704, and females 429; value of the products of the year $10,000,182.

44. The following tabular statement (*see Rep. U. S. Sec. of Treas.*, 1855–6), though imperfect and differing somewhat in its results from the foregoing census returns, is valuable as presenting in a condensed form a sketch of the progress of manufactures since 1810:

	1810.	1820.	1830.	1840.	1850.
Manufactures of cotton	$26,076,997	$4,834,157	$22,584,815	$46,350,458	$61,869,084
Manufactures of wool	25,608,788	4,413,068	14,528,166	20,696,999	43,207,545
Manufactures of pig iron	3,616,457	2,230,276	4,757,403	7,172,575	12,743,727
Manufactures of iron castings				9,916,442	25,108,155
Manufactures of wrought iron	10,998,086	4,640,669	16,737,251	11,820,145	22,628,771
Prod. of distilleries and breweries	16,483 960	4,876,486	3,434,808	14,674,804	18,218,681
Products of the fisheries	463,320	—	3,640,758	11,996,008	10,000,182
Products of salt works	1,163,094	1,852,258	935.173	1,235,835	2,222,745
Manufactures produced in families	(included in cotton and woolen products.)			29 023,880	27,493,644
All other manufactures	60,975,204	29,919,621	46,077,092	329,391,574	832,103,265
Total value	$145,385,906	$52,766,535	$112,645,466	$483,278,215	$1,055,595,899

—the returns for 1820 are extremely defective; and in 1830 only ten States are represented.

* From actual census; all others estimates.

45. It is not possible to say with any degree of accuracy what progress may have been made in manufactures during the five years ending in 1855. In that year censuses were taken in several of the States, and in New York and Massachusetts elaborate returns of this great branch of industry have been published. The value of goods produced in the former is stated at $317,428,331, and in the latter at $295,820,681, against $237,597,249 and $151,137,145 in 1850; and hence in the one the increase has been at the rate of 33.5, and in the other at the rate of 95.7 per cent. Taking the lower rate as that of the whole United States, and applying it to the results of 1850, it would give for 1855 no less an aggregate than $1,351,115,284.

46. As a commercial country, the United States now ranks second only to Great Britain. France is much inferior to it in shipping; but still surpasses it in the value of its imports and exports. But the rapid progress which has been made in the commercial movements of the country promise for it a future of grandeur hitherto unattained by any other nation.

47. The statistics of the commerce of the United States with foreign nations and countries for the years ending on the 30th June, 1850 and 1855, are exhibited in the annexed forms—

a. Statement of the value of domestic and foreign exports and of imports:

Exports.	1850.	1855.
Products of the sea	$2,824,818	$3,516,894
Products of the forest	7,442,503	12,603,837
Animals and products of	10,549,338	17,178,080
Vegetable food	15,822,373	23,651,362
Cotton	71,984,616	88,143,844
Tobacco	9,951,023	14,712,468
Other agricul. products	175,402	1,738,034
Manufactures	15,196,451	28,027,180
Other raw products	953,664	2,373,317
Specie and bullion	2,046,679	53,957,418
Quicksilver	—	806,119
Domestic exports	$136,946,912	$246,708,553
Foreign merchandise	9,475,493	26,158,368
" specie and bullion	5,476,315	2,289,925
Total exports	$151,898,720	$275,156,846

Imports.	1850.	1855.
Teas	$4,588,373	$6,930,986
Coffee	11,215,076	16,872,929
Woolens	16,900,916	22,076,448
Cottons	19,681,612	15,742,923
Silk and silks	18,041,009	25,118,173
Iron and manufactures of	10,864,680	23,945,274
Wines	2,065,902	3,117,330
Distilled spirits	3,166,841	2,259,486
Sugar	6,950,716	13,284,663
Tobacco	1,743,341	4,079,569
Salt	1,227,518	1,692,587
Coal	361,855	893,925
Fish, dried, etc.	2 992,628	1,000,330
All others	73,704,139	120,794,085
Specie and bullion	4,628,792	3,659,812
Total imports	$173,188,318	*$261,468,520

b. Statement of the commerce of the United States with foreign nations:

FOREIGN STATES AND COUNTRIES.	VALUE OF EXPORTS. DOMESTIC PRODUCTS. 1850.	DOMESTIC PRODUCTS. 1855.	FOREIGN PRODUCTS. 1850.	FOREIGN PRODUCTS. 1855.	TOTAL. 1850.	TOTAL. 1855.	VALUE OF IMPORTS. 1850.	1855.
Russia on the North	$	$ 48,940	$	$ 20,414	$	$ 69,354	$	$ 250,556
Russia on the Black Sea	666,435	—	198,506	—	864,941	—	1,511,572	26,308
Asiatic Russia		—		—		—		—
Russia in America		34,125		19,966		54,091		19,249
Prussia	70,645	20,466	27,991	10,800	98,636	31,266	27,469	337,814
Sweden and Norway	668,580	949,017	51,610	28,793	720,190	977,810	1,032,117	843,900
Swedish West Indies	98,176	68,856	1,166	391	99,342	69,247	2,193	32,229
Denmark	165,874	70,996	20,706	8,675	186,580	79,671	527	1,701
Danish West Indies	867,140	843,111	114,818	45,353	981,958	888,464	267,459	225,308
Hamburg	4,320,780	2,035,441	885,742	515,194	5,206,522	2,550,635	8,787,874	2,345,535
Bremen		7,119,728		459,887		7,579,615		10,644,578
Lubec		—		—		—		—
Other German ports	—	10,959	—	2,642	—	13,601	—	97
Holland	2,188,101	1,920,369	416,564	208,615	2,604,665	2,128,984	1,686,967	1,825,700
Dutch West Indies	864,335	232,640	56,683	7,616	421,018	240,256	530,146	438,841
Dutch Guayana	97,014	237,963	5,425	10,643	102,439	248,606	71,043	206,633
Dutch East Indies	180,533	287,937	262,952	53,886	443,485	341,823	444,404	1,032,270
Belgium	2,168,357	2,376,354	375,403	1,550,886	2,543,760	3,927,240	2,404,954	3,398,690
England	64,686,959	129,475,967	4,210,271	6,153,178	68,897,230	135,629,145	72,118,971	102,436,293
Scotland	3,021,740	2,306,751	183,679	114,489	3,205,419	2,421,240	2,746,670	3,954,594
Ireland	1,025,031	1,209,633	42,698	332,851	1,067,724	1,542,484	293,783	152,293
Gibraltar	186,307	225,365	60,482	123,379	246,789	348,744	44,269	66,541
Malta	75,329	212,397	39,051	72,452	114,380	284,849	11,354	62,616
Canada	4,641,451	9,950,764	1,289,370	8,769,580	5,930,821	18,720,344	4,285,470	12,182,314
Other Brit. N. Am. pos.	3,116,840	5,855,878	501,374	3,229,798	3,618,214	9,085,676	1,358,992	2,954,420
British West Indies	3,612,802	4,788,151	178,644	232,992	3,791,446	5,021,143	1,126,968	1,518,670
British Honduras	171,984	471,433	16,551	51,526	188,535	522,959	178,690	339,974
British Guayana	502,776	824,119	22,663	813	525,439	824,932	14,591	107,180
Other Brit. S. Am. pos.	—	—	—	—	—	—	497	19,500
Brit. Posses. in Africa	143,219	443,475	—	8,837	143,219	452,312	72,206	399,068
British Australia	—	2,703,043	—	320,506	—	3,023,549	—	223,593
British East Indies	502,613	714,119	156,846	198,144	659,459	912,263	2,865,016	5,457,378
France on the Atlantic	16,934,791	28,296,294	1,724,915	1,090,146	18,659,706	29,386,440	25,885,170	29,009,398
France on the Mediter.	1,015,486	3,327,604	158,155	164,084	1,173,641	3,491,688	1,702,855	2,599,733
French N. Am. posses.	2,517	150,848	—	35,677	2,517	186,525	—	139,854
French West Indies	269,377	396,337	18,291	12,864	287,668	409,701	75,684	44,434
French Guayana	43,405	78,652	1,382	1,966	44,787	80,618	12,551	8,546
French East Indies	12,575	—	2,200	—	14,775	—	10,005	—
Spain on the Atlantic	605,659	1,189,158	28,558	151,117	634,217	1,340,275	880,181	518,140
Spain on the Mediterra.	3,256,362	3,375,680	96,855	203,701	3,353,217	3,579,381	1,702,214	1,935,372
Canary Islands	20,524	43,211	5,065	3,086	25,589	46,297	85,223	45,155
Philippine Islands	16,817	94,203	1,450	83,708	18,267	177,911	1,336,866	2,867,441
Cuba	4,580,256	7,607,119	460,041	397,463	4,990,297	8,004,582	10,292,398	18,625,339
Porto Rico	816,062	1,144,581	93,591	88,937	909,653	1,188,518	2,067,866	2,475,998
Portugal	172,978	270,716	5,236	24,867	178,214	295,583	339,763	186,067
Madeira	136,874	48,502	6,527	5,216	143,401	53,763	114,729	25,933
Cape de Verde Islands	47,043	56,496	2,167	3,120	49,210	59,616	—	24,300
Azores	14,421	13,972	2,152	593	16,573	14,565	16,328	199,111
Sardinia	170,764	1,838,186	86,136	143,844	256,900	1,982,030	205	217,232
Tuscany	45,664	226,917	23,468	42,669	69,132	269,586	—	1,709,504
Papal States	—	279,740	—	67	—	279,807	—	63,984
Two Sicilies	—	207,790	—	443,686	—	651,476	—	1,718,949
Austria	1,179,893	109,350	312,111	70,520	1,492,004	179,870	467,601	380,140
Austrian Italy		1,168,177		51,754		1,219,931		116,143
Italy generally	1,617,743	—	252,928	—	1,870,671	—	2,927,706	—
Ionian Republic	—	—	—	—	—	—	—	—
Greece	—	—	—	—	—	—	—	—
Turkey in Europe	204,897	377,327	53,344	54,783	257,741	432,110	801,023	47,462
Turkey in Asia		416,932		108,997		525,929		743,427
Egypt	—	—	—	—	—	—	—	43,592
Other ports in Africa	730,932	1,309,435	28,334	66,470	759,266	1,375,905	524,722	1,337,527
Hayti	1,211,007	1,773,542	139,181	807,796	1,350,188	2,081,338	1,544,771	2,474,487
San Domingo		155,792		7,922		163,714		141,088
Mexico	1,498,791	2,253,368	514,036	669,436	2,012,827	2,922,804	2,135,366	2,882,830
Central America	57,225	1,210,584	12,967	51,586	70,192	1,262,170	261,459	286,409
New Granada	970,619	892,245	285,600	169,800	1,256,219	1,062,045	591,992	1,799,672
Venezuela	678,462	1,152,604	340,008	70,845	1,018,470	1,223,449	1,920,247	3,616,869
Brazil	2,723,767	3,973,219	473,347	288,054	3,179,114	4,261,273	9,324,429	15,218,935
Uruguay	60,024	394,657	1,518	27,515	61,542	422,172	—	242,709
B. Ayres or Arg. Repub.	718,331	810,756	346,311	158,671	1,064,642	969,427	2,658,877	2,545,087
Chile	1,297,133	2,994,231	125,588	432,026	1,422,721	3,426,257	1,796,877	3,518,896
Bolivia	—	—	—	—	—	—	—	—
Peru	258,939	756,323	16,789	114,223	275,728	870,546	170,753	597,618
Ecuador	24,414	66,092	10,511	—	34,925	66,092	4,618	12,553
Sandwich Islands	—	929,671	—	195,951	—	1,125,622	64,476	442,899
Japan	—	—	—	—	—	—	—	6,527
China	1,485,961	1,583,057	119,256	186,372	1,605,217	1,719,429	6,593,462	11,048,726
Other ports of Asia	315,463	16,555	13,321	196	328,784	16,751	402,599	—
Whale fisheries	169,025	330,133	20,837	16,214	189,862	346,347		40,065
Uncertain places	90,190	—	50,442	—	140,632	—	96,102	1,576
Total	136,946,912	246,708,553	14 951,808	28,448,293	151,898,720	275,156,846	178,188,318	*261,468,520
Carried in Amer. bot.	89,616,742	182,885,249	9,998,299	20,365,313	99,615,041	203,250,562	139,657,043	202,234,900
Carried in for. bottoms.	47,330,170	63,823,304	4,953,509	8,482,980	52,283,679	71,906,284	38,481,275	59,233,620

c. Statement of the value of the foreign commerce of the States and Territories of the United States severally:

STATES, ETC.	VALUE OF EXPORTS. DOMESTIC PRODUCTS. 1850.	DOMESTIC PRODUCTS. 1855.	FOREIGN PRODUCTS. 1850.	FOREIGN PRODUCTS. 1855.	TOTAL. 1850.	TOTAL. 1855.	VALUE OF IMPORTS. 1850.	1855.
Maine	$ 1,536,818	$ 2,543,014	$ 20,094	$ 2,308,193	$ 1,556,912	$ 4,851,207	$ 856,411	$ 2,927,443
New Hampshire	8,722	1,523	205	—	8,927	1,523	49,079	17,786
Vermont	404,749	322,544	26,157	2,572,924	430,906	2,895,468	463,092	591,593
Massachusetts	8,253,473	24,412,923	2,428,290	3,778,002	10,681,763	28,190,925	30,374,684	45,113,774
Rhode Island	206,299	331,287	9,966	4,736	216,265	336,023	258,303	536,387
Connecticut	241,262	859,492	668	19,382	241,930	878,874	372,390	633,826
New York	41,502,800	96,414,808	11,209,989	17,316,430	52,712,789	113,731,238	111,123,524	164,776,511
New Jersey	1,655	687	—	—	1,655	687	1,494	1,473
Pennsylvania	4,049,464	5,985,125	452,142	289,213	4,501,606	6,274,338	12,066,154	15,309,935
Delaware	—	63,087	—	—	—	63,087	—	5,821
Maryland	6,589,481	9,882,218	377,872	513,766	6,967,353	10,395,984	6,124,201	7,788,949
Dist. of Columbia	80,388	36,143	200	—	80,588	36,143	59,819	24,699
Virginia	3,413,158	4,346,329	2,488	33,599	3,415,646	4,379,928	426,599	855,405
North Carolina	416,501	433,818	—	—	416,501	433,818	323,692	243,083
South Carolina	11,446,892	12,698,891	908	1,359	11,447,800	12,700,250	1,933,785	1,588,542
Georgia	7,551,943	7,543,519	—	—	7,551,943	7,543,519	636,964	273,716
Florida	2,607,968	1,403,594	15,656	—	2,623,624	1,403,594	95,709	45,998
Alabama	10,544,858	14,270,565	—	—	10,544,858	14,270,565	865,362	619,964
Mississippi	—	—	—	—	—	—	—	1,661
Louisiana	37,698,277	55,056,094	407,073	311,868	38,105,350	55,367,962	10,760,499	12,900,821
Tennessee	—	—	—	—	—	—	27,966	—
Missouri	—	—	—	—	—	—	359,643	—
Ohio	217,532	847,143	100	—	217,632	847,143	582,504	600,656
Kentucky	—	—	—	—	—	—	190,987	—
Michigan	132,045	526,825	—	41,266	132,045	568,091	144,102	281,379
Wisconsin	—	174,057	—	—	—	174,057	—	48,159
Illinois	17,669	547,053	—	—	17,669	547,053	15,705	54,509
Texas	24,958	694,057	—	222,904	24,958	916,961	25,650	262,568
California	—	7,189,415	—	1,034,651	—	8,224,066	—	5,951,379
Oregon Territory	—	123,612	—	—	—	123,612	—	9,666
Washington "	—	—	—	—	—	—	—	2,412
Minnesota "	—	730	—	—	—	730	—	405
Total	136,946,912	246,708,553	14,951,808	28,448,293	151,898,720	275,156,846	178,188,318	*261,468,520

d. Statement of the shipping and crews employed in the commerce of the United States with foreign countries:

Years.	American Shipping. No.	Tons.	Crews.	Foreign Shipping. No.	Tons.	Crews.	Total Shipping. No.	Tons.	Crews
1850 Cleared	8,379	2,632,788	106,753	9,816	1,728,214	89,168	18,195	4,361,002	195,871
1850 Entered	8,412	2,573,016	104,369	10,100	1,775,623	91,801	18,512	4,348,639	196,170
1855 Cleared	9,569	4,068,979	143,677	9,921	2,110,322	102,878	19,490	6,179,301	246,555
1855 Entered	9,315	3,861,391	137,808	10,012	2,083,948	100,807	19,327	5,945,339	238,615

—the increase in entrances being in the five years 36.6 per cent. and in clearances 41.7 per cent.

e. Statement of the shipping registered, enrolled, and licensed at the ports of the U. States:

Years.	Registered. Permanent.	Temporary.	Enrolled and Licensed. Permanent.	Temporary.	Licensed (under 20 tons).	Aggregate Tonnage.
1850	1,262,576	323,135	1,879,514	20,041	50,188	3,535,454
1855	1,957,706	577,430	2,602,499	13,231	60,844	5,212,001

—and of the description and proportion of tonnage employed as understated:

Years.	Registered. Whale Fishery.	Steam Navigation.	Enrolled and Licensed. Coasting Trade.	Cod Fishery.	Mackerel Fishery.	Whale Fishery.	Steam Navigation.	Lic. under 20 tons. Coasting Trade.	Cod Fishery.
1850	146,017	44,942	1,755,796	85,646	58,112	—	481,004	42,028	8,160
1855	186,778	115,045	2,491,108	102,928	21,625	70	655,289	52,147	8,987

—showing an increase of the total tonnage in the five years equal to 47.4 per cent., and of steam tonnage an increase of 46.4 per cent.

f. Statement of the description and amount of shipping built in the United States:

Years.	Classes of Vessels. Ships and Barques.	Brigs.	Schooners.	Sloops, etc.	Steamers.	Total.	Total Tonnage.
1850	247	117	547	290	159	1,360	272,218
1855	381	126	605	669	243	2,024	583,450

—showing an increase in 1855 over 1850 of 311,232 tons or 114.3 per cent.

See STATISTICAL TABLE, p. 53, for the progress of commerce from 1789 to the present time.

48. Comparing the foreign commerce and navigation, etc., of the United States with that of the United Kingdom and France in 1855, the following are the results:

Countries.	Valuation of Commerce. Exports.	Imports.	Tonnage Employed. Cleared.	Entered.	Shipping owned.	Shipping built.
United States	$275,156,846	$261,468,520	6,179,301	5,945,339	5,212,001	583,450
United Kingdom	564,389,582	690,482,424	11,605,595	10,886,436	4,349,604	328,200
France	316,400,000†	255,080,000†	2,034,655	3,304,765	916,649	57,154

—the steam shipping of the countries severally and included in the above aggregate having been for the United States 770,285 tons, for the United Kingdom 380,635 tons, and for France 44,493 tons.

49. The domestic trade of the Union is incomparably larger and more valuable than its external trade. It can only be estimated from arbitrary data or from the isolated returns of a few great trade centers. On such basis an estimate was founded by Israel D. Andrews, Esq., whose valuable report for 1851 and 1852 was published by the authority of the United States Senate (32 *Cong.*, 1 *Sess.*, *Ex. Doc.*, *No.* 112). From this we learn that the grand total of exports and imports amounted to 77,647,906 tons valued at $6,242,515,574, and was apportioned to the several departments of the trade in the following manner:

Lake commerce (shore-line 3,620 miles)	1851	3,971,126 tons	valued at $314,478,458
River commerce (navigable length 26,000 miles)	1851	4,066,800 "	" 339,502,744
Coasting trade (shore-line 12,500 miles)	1851	40,794,980 "	" 3,319,039,372
Canal trade (length of canal 3,600 miles)	1852	18,000,000 "	" 1,188,000,000
Railroad trade (length of railroad 10,000 miles)	1852	10,815,000 "	" 1,081,500,000

—dividing these sums by two will give the net amount and value; and hence it would appear that the absolute amount of produce and merchandise moved from place to place in search of

* Including the value of indirect importations from the German Zollverein, Switzerland, and Austria, *via* the ports as undermentioned:

Original Source.	Countries through the ports of which transmitted. Bremen.	England.	France.	Belgium.	Holland.	Hamburg.	Rotterdam.	Total.
Zollverein	$5,324,971	$2,842,826	$2,637,747	$1,156,950	$165,673	$704,159	$3,204	$12,835,530
Switzerland	569,168	3,405,266	3,791 004	—	9,542	3,152	—	7,778,132
Austria	188,995	59,555	56,966	—	500	29,888	—	335,904
Total	$6,083,134	$6,307,647	$6,485,717	$1,156,950	$175,715	$737,199	$3,204	$20,949 566

—of the total of the Zollverein—from Prussia $7,024,562, Bavaria $823,493, Saxony $2,710,591, Frankfort $682,207, Baden $278,092, Wurtemburg $149,403, Hesse $396,418, Brunswick $3,223, Oldenburg $1,208, Saxe-Meiningen $6,171, Saxe-Weimar $13,409, Hanover $44,277, countries not specified $702,476.

† This is the foreign commerce of France by sea. To this should be added, in order to note the whole foreign commerce of that nation, its trade by land, which in the year referred to consisted of—exports $89,040,000, and imports $135,060,000. The total trade was thus—exports $405,440,000, and imports $390,140,000.

consumers was 38,823,953 tons valued at $3,121,257,787. This result may approximate accuracy so far as relates to the number of tons transported; but in relation to the valuation is unsatisfactory, as it by no means decides that the same property has not entered and re-entered several times into the general account as it was removed from point to point. The increase of domestic commerce in the five years from the dates above used must have been large, and if in the same ratio as the advance of other departments of industry, the totals for the years 1856 and 1857 may with safety be reckoned at a full third more than the amounts and values estimated with the foregoing results.

50. Few countries are so well provided with the means of prosecuting a vast and lucrative commerce. Nature has provided for it on a magnificent scale waterways which render accessible its most remote sections; and what nature has left undone has been effected by the industry of man and the aid of art. Railroads, canals and river improvements, turnpikes, roads of other grades, and telegraph lines now intersect and connect all the more settled portions of the country; and so rapidly and cheaply are these constructed that in more than one instance these modern ways of commerce have been extended into the wilderness, and been the means of peopling vast districts, which would otherwise have remained waste for an indefinite period or until the increasing density of population would have forced its surplus into their remote confines. If we take only the routes traveled by the post* the aggregate mileage is immense, and its increase year by year so great as to occasion the wonder and admiration of the world. But the routes so used by no means express the sum of the mileage in use as commercial routes, which have a much wider range and more intricate system, originating in every hamlet and coalescing at greater and greater centers until they are merged into the great streams of commerce, which directly point to and radiate from the central marts of supply and distribution.

51. The canal, railroad, and telegraph are projections of the present century. Of the canals the most conspicuous on account of their extent and value to commerce are—the Erie Canal extending from Albany, N. Y., to Buffalo, N. Y.; the Pennsylvania lines of canals from Philadelphia, Pa., to Pittsburg, Pa.; the Chesapeake and Ohio extending from Alexandria, Va., to Cumberland, Md., and further projected to Pittsburg, Pa.; and the James River Canal completed from Richmond, Va., to Buchanan, Va., and in progress to the mouth of the Kanawha River on the Ohio. These are all east and west waterways, supplying navigable channels from tide-water to the great lakes and Ohio valley. In New York and Pennsylvania there are also several lateral canals connecting with the main lines. The great lines of the interior have been opened to connect the lakes with the Ohio and Mississippi, as the Ohio canals, which extend from Cleveland and Sandusky to Portsmouth and Cincinnati; the Indiana Canal, which extends from Sandusky and down the Wabash valley to the Ohio River at Evansville, and the Illinois Canal connecting Chicago with the navigable waters of the Illinois River. A short canal also connects the navigation of the Fox and Wisconsin rivers, and through them the lakes and the Mississippi. Besides these there are numerous other shorter canals, chiefly in Virginia, North Carolina, South Carolina, and Louisiana, which are of immense local value. The total length of canal and river improvements adapted to commercial navigation has a length of about 5,000 miles.

52. The railroad was first inaugurated in 1828, in which year a short railroad was opened from Quincy quarries to Boston harbor. New York, South Carolina, and Pennsylvania were the next States to introduce this great invention, and subsequently the adjoining and at last the most remote States, spurred on by the necessities of commerce, commenced and completed to a greater or less degree works of unprecedented extent; and so persistent has been the spirit which has sustained these enterprises, that at the present time (1858) there is at least one mile of completed railroad for every thousand inhabitants of the country or about 28,000 miles, which have been built and equipped at an average cost of $35,000 a mile. Otherwise there are about 16,000 miles additional being built, and which will be opened to commerce within the next ten years; and the mileage of projected railroad is even on a greater scale.

53. But even the great conveniences supplied by the railroad were unsatisfactory to commerce. It demanded a greater speed than the railroad could attain, and hence at its call electricity was harnessed to do its behests, and now traverses the wires from one end of the country to the other and in every direction. The invention of the electric telegraph is due to Prof. Morse, an American, who in 1844 stretched the wires between Washington and Baltimore. From this small beginning a vast system of lines has been established, and all the great trade centers of the Union placed in instantaneous connection. With modifications this means of communication has been adopted by all civilized countries, and in several instances crosses the seas, and an attempt is already being made to lay a wire below the ocean from Europe to America. This will be accomplished during the present year (1858), and by its means intelligence will be transmitted from one world to the other in a space of time inappreciable except to science. The length of telegraph line within the United States is not less than 60,000 miles, and has been extended at an expense of little less than $10,000,000. In 1850 the length was only 23,281 miles, and in 1854 only 41,392. The immense utility and convenience of such an agent to commerce and society generally is beyond calculation, but requires no comment.

54. The government of the United States is a federal democratic republic. It is based on the constitution of 1787 and amendments thereto. The electors of the most numerous branch of the several State legislatures are qualified electors in the State respectively for all elective officers of the general government.

55. All legislative powers are vested in a congress, which consists of a senate and house of representatives. The house of representatives is composed of members chosen every second year by the people, and in number according to population; and in order to ascertain the number, two thirds of the slaves and all Indians not taxed are excluded from the representative population. Each State, however, is entitled to at least one representative. No person under 25 years of age, who has been less than seven years a citizen, and who is not a resident of the State from which elected, is qualified for representative. The number of representatives, under the apportionment of 1853, is 234; and in addition to these the house admits a delegate from each organized Territory, who has the right to debate on subjects in which his constituents are interested, but can not vote. The senate consists of two members from each State, elected by the legislature thereof for six years, and one third of the body is renewed biennially. Senators must be at least 30 years of age, must have been citizens for nine years, and be resident in the State from which elected. The Vice-President of the United States is *ex-officio* president of the senate; the house chooses its own speaker. Besides its ordinary legislative capacity, the senate is vested with certain judicial functions, and its members constitute a high court of impeachment. The representatives have the sole power of impeachment.

56. The executive power is vested in a President, who, as also the Vice-President, is elected for four years by an electoral college, chosen by popular vote, or by the legislatures of the States severally, the number of electors being equal to the number of senators and representatives from the States to Congress. A majority of the aggregate electoral votes is necessary to elect. The President and Vice-President must be native-born citizens, at least 35 years of age, and have been resident for 14 years. The President is commander-in-chief of the army and navy, and of the militia when in the service of the Union. With the concurrence of two thirds the senate he has power to ratify treaties, appoint civil and military officers, levy war, conclude peace, etc., and has a veto in all congressional action. In case of the death, resignation, or disability of the President, the Vice-President acts in his stead.

57. The administrative business of the nation is conducted by several officers, with the title of secretary, etc., who form what is termed the cabinet or executive council. These are the secretaries of state, war, navy, treasury, and interior, the postmaster-general, and the attorney-general. Each of these presides over a separate department.

58. The judicial powers of the government are exercised by a supreme court and such inferior courts as the Congress may from time to time establish. The present judicial establishment consists of a supreme court, circuit courts, and district courts. The supreme court, the highest judicial tribunal, is composed of a chief-justice and eight associate justices, the attorney-general, a reporter, and a clerk. The court is held at Washington, and has one session annually. Circuit courts are held by a justice of the supreme court conjointly with the judge of the district in which the court sits. For the purposes of this court the United States are divided into nine judicial circuits, in each State composing which a court is held twice a year. District courts are held by district judges alone. Each State is one or more districts for the purpose of holding these courts. There are also territorial courts, which have the same powers as district courts.

59. The receipts and expenditures in the years ending 30th June, 1850 and 1855, are thus stated:

Receipts.	1850.	1855.
Customs	$39,668,687	$53,025,794
Sales of public lands	1,859,894	11,497,049
Miscellaneous sources	1,847,218	481,087
	$43,375,799	$65,003,930
Balance from last year	2,184,964	20,137,968
Total, exclusive of loans, etc.	$45,560,763	$86,141,898
Loans and treasury notes	4,045,950	—
Total means	$49,606,713	$85,141,898

Expenditures.	1850.	1855.
Civil list	$3,042,770	$5,684,496
Foreign intercourse	4,838,595	964,311
Miscellaneous	6,958,360	17,584,680
Department of interior	3,400,525	4,126,739
Department of war	9,401,289	14,773,826
Department of navy	7,923,313	13,281,341
Public debt and interest thereon	7,437,366	9,844,528
Total	$43,002,168	$66,209,922
Balance to next year	$6,604,545	$18,931,976

—the public debt on 30th November, 1850, amounted to $64,228,238, and 1855 to $39,969,731. These figures are exclusive of trust funds.

60. The amounts of gold and silver deposited in the mint at Philadelphia and its several branches (at New Orleans, La.; San Francisco, Calif.; Dahlonega, Ga.; Charlotte, N. C.) and the assay office in New York in 1850 and 1855, and of the coinage, were as follows:

Deposits.	1850.	1855.
GOLD—		
United States coins	$9,996	$3,317
Foreign coins	1,303,740	295,919
United States bullion	36,938,314	63,574,032
Foreign bullion	113,110	440,625
Total gold	$38,365,160	$64,223,893
SILVER—		
United States bullion	$269,253	$371,337
Foreign bullion	143,192	5,421,777
Foreign coins	1,526,596	
Total silver	$1,939,041	$5,793,114
Total gold and silver	$40,304,201	$70,017,007

Coinage.	1850.	1855
GOLD—Double eagles	$26,225,220	$22,528,020
Eagles	3,489,510	2,351,870
Half eagles	860,160	1,474,425
Three dollars	—	295,245
Quarter eagles	895,542	1,205,275
Dollars	511,301	1,625,500
Bars (fine and unparted)	—	23,616,748
Total gold	$31,981,733	$53,097,183
SILVER—Dollars	$47,500	$26,000
Half dollars	1,341,500	2,472,350
Quarter dollars	150,700	1,958,000
Dimes	244,150	536,500
Half dimes	85,250	213,500
Three-cent pieces	—	12,300
Total silver	$1,869,100	$5,219,150
COPPER—Cents and half cents	$44,468	$22,458

—making a total coinage valued in 1850 at $33,892,301, and in 1855 at $58,338,791. The total coinage of gold and silver from 1793 to the end of the fiscal year, 1850, amounted to $195,074,711, and to the end of 1855 to $485,057,950, namely, for the latter date, $385,505,545 in gold and $99,552,405 in silver. The estimated amount of specie in the country in 1851 was $186,000,000, of which $138,000,000 was in circulation, and $48,000,000 in banks. In 1855 the amount in circulation was estimated at $200,000,000, and the deposits in bank at $60,000,000.

61. The gold regions of the United States are two: the Apalachian gold field and the Sierra Nevada gold field. Previous to the discovery of the latter, all the gold deposited in the mint was taken from the fields on the eastern base of the Apalachian chain, in Virginia, North and South Carolina, Georgia, etc., and amounted only to $12,808,575. Since that period, to the 30th June, 1857, the deposits were as follows:

Years.	Virginia.	N. Carolina.	S. Carolina.	Georgia.	California.	Total.
1848	$57,886	$473,543	$40,577	$257,063	$48,301	$896,675
1849	129,382	485,793	24,564	236,349	6,151,360	7,079,144
1850	65,991	355,523	19,459	209,587	36,273,097	36,933,314
1851	69,052	326,883	41,052	157,213	55,938,232	56,540,612
1852	83,626	403,295	126,982	96,542	53,794,700	54,506,963
1853	52,200	275,622	99,317	58,896	55,113,487	55,622,051
1854	23,514	207,073	36,604	55,831	56,933,931	57,258,158
1855	30,665	226,416	32,210	71,519	48,985,893	49,351,778
1856	28,535	171,070	35,756	90,119	47,508,410	47,878,440
1857 (6 months)	4,036	83,870	13,312	39,090	23,128,176	23,270,029
Total, 9½ years	$544,887	$3,009,088	$469,733	$1,272,209	$383,873,099	$389,342,177
Total, 1804–1857	1,490,781	8,537,093	1,203,373	6,618,142	383,873,099	402,150,752

—the total includes several small amounts from Alabama ($193,984), Tennessee ($80,299), New Mexico ($48,397), Oregon, etc. ($105,581).

62. From these exhibits it will be seen that of the total amount deposited since 1804, viz.,

* The length of post-routes in the United States in 1850 measured 178,672 miles, and in 1855, 227,908 miles. Of the total in the years respectively 6,686 and 18,333 miles was by railroad, 9,725 and 14,619 miles by steam navigation, 40,776 and 49,203 miles by coach road, and 121,285 and 145,753 miles by inferior grades of road. *See*, also, *Table*, p. 50.

$402,150,752, or since 1847, viz., $389,342,177, California alone has deposited $383,873,099. These sums, however, do not represent the full production of the United States mines, since large quantities, probably 20 per cent. of the whole, are exported as bullion, have been manufactured, or remain in the hands of individuals. The total gold produced in California alone, to the end of 1857, is estimated at $485,000,000.

63. It has never been the policy of the United States to maintain a large permanent armed force either by sea or land; but to trust for offense and defense to volunteers and the militia. And hence at the present day so far as the land force is concerned it numbers fewer men under arms than several of the second-rate German powers, nor is its public navy larger than those of such powers as Portugal and Sweden. Nevertheless its forces, often collected at short notice and with inadequate preparation, have been equal to all emergencies; and such is the military spirit of the nation, that both the army and navy could be amply recruited for defense at a few days' notice. The existing establishment, therefore, can only be considered as the nucleus about which the real force of the country would be collected, should war or insurrection unhappily disturb our peace.

64. The federal army in 1857 was organized as follows:

	Officers.	Men.
General officers	4	—
Adjutant-general's department	13	—
Inspector-general's department	2	—
Quartermaster's department	40	—
Subsistence department	11	—
Medical department	107	68
Pay department	28	—
Corps of engineers	47	88
Corps of topographical engineers	39	—
Ordnance department	54	244
2 regiments of dragoons	74	1,038
2 " of cavalry	75	1,582
1 " of mounted riflemen	37	694
4 " of artillery	216	3,191
10 " of infantry	350	6,225
Non. com. staff unattached to regiments	—	72
Detachments at depots, rendezvous, etc.	—	1,465
Total	1,097	14,667
Recruits required		2,205

—making an aggregate of 17,969 officers and men as the full complement of the establishment.

65. For military purposes the United States territory is divided into six departments, viz., the Department of the East (headquarters, Troy, N. Y.); that of Florida (Ft. Brooke); that of the West (St. Louis, Mo.); that of Texas (San Antonio); that of New Mexico (Santa Fé), and that of the Pacific (San Francisco). And belonging to this arm of the service are the national armories at Harper's Ferry, Va., and Springfield, Mass., with 24 arsenals and three ordnance depôts distributed over the several departments.

66. The enrolled militia, according to the Army Register for 1857, numbered in the aggregate 54,109 commissioned officers and 2,071,249 non-commissioned officers, musicians, artificers, and privates, and in the several States and Territories was returned as follows:

Maine	2,617	Virginia	125,531	Indiana	53,913
New Hampshire	33,538	North Carolina	79,448	Illinois	257,420
Massachusetts	155,031	South Carolina	36,072	Wisconsin	49,261
Vermont	23,915	Georgia	78,699	Missouri	118,047
Rhode Island	1,151	Florida	12,122	Arkansas	36,054
Connecticut	51,814	Alabama	76,662	Texas	19,766
New York	333,358	Louisiana	90,732	California	208,645
New Jersey	81,984	Mississippi	36,084	Minnesota	2,003
Pennsylvania	106,957	Tennessee	71,252	Utah Territory	2,821
Delaware	9,229	Kentucky	88,979	(Iowa and Territories of New Mexico, Oregon, Washington, Kansas, and Nebraska made no returns.)	
Maryland	46,864	Ohio	176,455		
District of Columbia	8,201	Michigan	97,094		

—but it is easily seen that in many instances the above table does not exhibit the whole military forces of the States. In general all free male persons between the ages of 18 and 45 years are liable to military duty, and of such there were in the United States in 1850 upward of 4,000,000, which number may be set down as the approximate militia force of the nation.

67. The national navy in 1857 comprised the following vessels:

Vessels	In Commission, No.	In Commission, Guns.	In Ordinary, No.	In Ordinary, Guns.	On Stocks, No.	On Stocks, Guns.	Total, No.	Total, Guns.
Ships of the line	3	288	3	252	4	336	10	876
Razee	1	56	—	—	—	—	1	56
Frigates	2	100	8	400	—	—	10	500
Sloops	17	320	4	82	—	—	21	402
Brigs	—	—	5	24	—	—	5	24
Schooner	—	—	1	3	—	—	1	3
Store ships	3	12	—	—	—	—	3	12
Screw steamers, 1st class	4	160	1	50	2	90	7	300
" 2d class	1	13	—	—	—	—	1	13
" 3d class	1	10	1	9	—	—	2	19
Side-wheel steamers, 1st class	3	34	—	—	—	—	3	84
" " 2d class	1	6	—	—	—	—	1	6
" " 3d class	2	6	1	2	—	—	3	8
Steam tenders	3	3	—	—	—	—	3	3
Total	41	1,008	24	822	6	426	71	2,256

For naval operations this fleet is distributed into the Home, Brazilian, Pacific, Mediterranean, East Indian, and African squadrons.

68. Connected with the navy there is a naval academy at Annapolis, Md.; navy yards at Kittery, Me.; Charlestown, Mass.; Brooklyn, N. Y.; Philadelphia, Pa.; Washington, D. C.; Gosport, Va.; Warrington, Fla.; Mare Island, Cal.; and Sackett's Harbor, N. Y.; navy hospitals at Chelsea, Mass.; Brooklyn, N. Y.; Philadelphia, Pa.; Norfolk, Va.; and Pensacola, Fla.; and naval magazines at or in the neighborhood of all the navy yards.

69. The personnel of the navy consists of 68 captains, 96 commanders, 311 lieutenants, 69 surgeons, 43 passed assistant surgeons, 37 assistant surgeons, 64 pursers, 24 chaplains, 12 professors of mathematics, 24 masters in the line of promotion, 24 passed midshipmen, 31 midshipmen, 145 acting midshipmen, 38 boatmen, 40 gunners, 48 carpenters, 39 sailmakers, 17 chief engineers, and 79 assistant engineers in three classes. The marine corps has the organization of a brigade under a colonel-commandant.

70. A few historical facts concerning the formation of the original United States, and the admission of new States into that Union, may be appropriately introduced in this connection.

71. On Monday, the 5th September, 1774, there was assembled in Carpenters' Hall, in the city of Philadelphia, a number of delegates who had been chosen and appointed by the several English colonies in North America to hold a congress, for the purpose of discussing certain grievances imputed against the king and his officials. This congress resolved on the next day that each colony should have one vote only.

72. On Tuesday, July 2d, 1776, the Congress resolved, "That these united colonies are and of right ought to be free and independent states," etc.; and on Thursday, the 4th July, the whole Declaration of Independence having been agreed upon, it was publicly read to the people. Shortly after, on the 9th September, it was resolved that the words "United Colonies" should be no longer used, and that the "United States of America" should thenceforward be the style and title of the Union.

73. On Saturday, the 15th November, 1777, "Articles of Confederation and Perpetual Union of the United States of America" were agreed upon by the State delegates, subject to the ratification of the State legislatures severally. Eight of the States had ratified these articles by the 9th July, 1778; one did so on the 21st July; one on the 24th July; one on the 26th November of the same year; one on the 22d February, 1779, and the last one on the 1st March, 1781. Here was a bond of union among thirteen independent States, whose delegates in Congress legislated for the general welfare, and executed certain powers, so far as they were permitted by the articles aforesaid. The war of the Revolution closed in 1783.

74. On the 4th March, 1789, the present constitution, which had been adopted in a convention, and ratified by the requisite number of States, went into operation. The dates at which the State legislatures ratified this instrument were: Delaware, 7th Dec., 1787; Pennsylvania, 12th Dec., 1787; New Jersey, 18th Dec., 1787; Georgia, 2d Jan., 1788; Connecticut, 9th Jan., 1788; Massachusetts, 2d Feb., 1788; Maryland, 28th April, 1788; South Carolina, 23d May, 1788; New Hampshire, 21st June, 1788; Virginia, 26th June, 1788; New York, 26th July, 1788; North Carolina, 21st March, 1789; and Rhode Island, 29th May, 1790.

75. The privilege of becoming members of the Union by ratifying the constitution was confined to those States that were parties to the confederation by which the constitution had been framed. This constitution had been adopted by the convention on the 17th day of September, 1787. It required that nine States should ratify it before its provisions could go into effect. On the 13th of September, 1788, Congress determined that, as a sufficient number of States had complied with this reservation—eleven having done so, it should become operative on the first Wednesday (the 4th) of March, 1789. North Carolina and Rhode Island had not yet given it sanction; but as soon as they had acceded to it, they were admitted to a participation of its benefits.

76. Since the period of the adoption of the constitution twenty new States have been admitted into the Union. These are as follows: Vermont, 4th March, 1792; Kentucky, 1st June, 1792; Tennessee, 1st June, 1796; Ohio, 29th Nov., 1802; Louisiana, 8th April, 1812; Indiana, 11th Dec., 1816; Mississippi, 10th Dec., 1817; Illinois, 3d Dec., 1818; Alabama, 14th Dec., 1819; Maine, 15th March, 1820; Missouri, 10th Aug., 1821; Arkansas, 15th June, 1836; Michigan, 26th Jan., 1837; Florida, 3d March, 1845; Texas, 29th Dec., 1845; Iowa, 28th Dec., 1846; Wisconsin, 29th May, 1848; California, 9th Sept., 1850; Kansas (conditional act), 30th April, 1858; and Minnesota, 4th May, 1858.

77. In 1850 there were in the United States, 61 towns of 10,000 inhabitants and upward, and 199 towns having between 3,000 and 10,000:

States.	Towns of 10,000 and upward. Num.	Towns of 10,000 and upward. Popula.	Towns of 3,000 to 10,000. Num.	Towns of 3,000 to 10,000. Popula.	Total Urban Population.	Propor. of Urban to Rural Pop.
Maine	2	34,947	16	79,028	113,975	4.2
New Hampshire	1	13,932	8	44,748	58,680	29.0
Vermont	—	—	3	13,342	13,742	4.2
Massachusetts	12	322,796	19	112,409	435,205	44.1
Rhode Island	2	53,013	2	17,243	70,256	48.9
Connecticut	2	34,700	9	50,324	85,024	22.7
New England	19	459,388	57	327,094	786,482	28.8
New York	13	890,160	29	153,879	1,044,039	33.7
New Jersey	3	60,247	10	51,352	111,599	22.8
Pennsylvania	4	436,020	19	95,089	531,109	24.6
Delaware	1	13,979	—	—	13,979	17.9
Maryland	1	169,054	4	18,991	188,045	32.2
District of Columbia	1	40,001	1	8,366	48,367	93.5
Middle States	23	1,609,461	63	317,677	1,927,138	29.0
Virginia	4	67,321	6	25,844	103,165	7.2
North Carolina	—	—	4	21,109	21,109	2.4
South Carolina	1	42,985	1	6,060	49,045	5.2
Georgia	2	27,565	4	18,178	45,743	5.0
Florida	—	—	—	—	—	—
Southern Atlantic States	7	137,871	15	81,191	219,062	5.5
Alabama	1	20,515	2	12,228	32,743	4.2
Mississippi	—	—	4	16,612	16,612	2.7
Louisiana	1	116,375	1	4,500	120,875	23.3
Texas	—	—	3	12,165	12,165	5.8
Arkansas	—	—	—	—	—	—
Tennessee	1	10,478	3	15,341	25,819	2.4
Southwestern States	3	147,368	13	60,846	208,214	6.2
Kentucky	1	43,194	5	25,951	69,145	8.9
Missouri	1	77,860	4	15,550	93,410	13.7
Ohio	3	161,329	17	71,908	233,237	18.6
Indiana	—	—	6	34,948	34,948	3.5
Illinois	1	29,963	6	29,853	59,816	7.0
Michigan	1	20,019	4	11,062	31,081	7.8
Wisconsin	1	20,061	2	8,565	28,626	8.4
Iowa	—	—	1	3,000	3,000	1.5
Northwestern States	8	352,426	45	200,837	553,263	8.6
California	1	34,776	5	25,125	59,901	58.6
New Mexico Territory	—	—	1	4,846	4,846	7.8
United States	61	2,741,290	199	1,017,616	3,758,906	16.3

78. *Towns having upward of* 20,000 *and under* 30,000 *inhabitants:* Portland, Me., 20,815; Salem, Mass., 20,264; New Haven, Conn., 20,343; Troy, N. Y., 28,785; Syracuse, N. Y., 22,271; Alleghany, Pa., 21,262; Richmond, Va., 27,570; Mobile, Ala., 20,515; Chicago, Ill., 29,960; Detroit, Mich., 20,019; Milwaukie, Wis., 20,061—*Towns having upward of* 30,000 *and under* 40,000: Lowell, Mass., 33,380; Newark, N. J., 38,804; Rochester, N. Y., 36,403; Williamsburg, N. Y., 30,780; San Francisco, Cal., 34,776—*Towns having upward of* 40,000 *and under* 50,000: Providence, R. I., 41,513; Buffalo, N. Y., 42,261; Pittsburg, Pa., 46,601; Washington, D. C., 40,001; Charleston, S. C., 42,985; Louisville, Ky., 43,194—*Towns having upward of* 50,000 *and under* 100,000: Brooklyn, N. Y., 96,838; Albany, N. Y., 50,763; St. Louis, Mo., 77,860; and—*Towns having over* 100,000:

Years.	Boston.	New York.	Philadelphia.	Baltimore.	New Orleans.	Cincinnati.
1790	18,038	33,131	42,520	13,703	—	—
1800	24,937	60,489	69,403	26,114	—	—
1810	35,520	96,373	94,874	35,583	17,242	2,540
1820	43,298	123,706	112,772	62,738	27,176	9,642
1830	61,302	202,589	161,410	80,625	46,310	24,831
1840	93,383	312,710	220,423	102,313	102,163	46,338
1850	136,881	515,547	340,045*	169,054	116,375	115,436

—and in 1855 Boston had 160,508; New York, 629,810; Philadelphia, 449,638; Baltimore, 218,316; New Orleans, 145,449; and Cincinnati 184,697 inhabitants.

* Philadelphia as now consolidated, had, in 1850, 408,762 inhabitants.

TABULAR REVIEW OF THE PROGRESS OF THE UNITED STATES OF AMERICA,

FROM THE 4TH OF MARCH, 1789, TO THE PRESENT TIME.

COMPILED FROM OFFICIAL RETURNS FOR "COLTON'S CABINET ATLAS AND DESCRIPTIVE GEOGRAPHY," BY RICHARD S. FISHER.

Years.	Population by Census and Estimate.	COMMERCE. EXPORTS. Domestic Produce.	Foreign Produce.	Total Exports.	Total Imports.	SHIPPING. SAILING. Registered.	Enrolled and Licensed.	STEAM. Registered.	Enrolled and Licensed.	Total Shipping.	NATIONAL TREASURY. RECEIPTS ON ACCOUNT OF Customs.	Lands.	Loans and Treasury Notes.	Total, incl. Miscellaneous.*	Total Expenditures.	National Debt.	UNITED STATES POST. Post-Offices.	Post-Routes.†	Receipts.	Expenses.	COINAGE. Gold.	Silver.	Copper.	Total.	Years.
		$	$	$	$	Tons.	Tons.	Tons.	Tons.	Tons.	$	$	$	$	$	$	Number.	Miles.	$	$	$	$	$	$	
1789	3,811,976	19,666,000	539,156	20,205,156	23,000,000	123,893	77,669	—	—	201,562							—	—	—	—	—	—	—	—	1789
1790	3,929,872‡					146,254	132,123	—	—	274,377	4,399,473	—	5,791,112	10,210,025	7,207,539		—	—	—	—	—	—	—	—	1790
1791	4,067,371	18,500,000	512,041	19,012,041	29,200,000	362,110	139,036	—	—	502,146						75,463,476	75	1,875	37,935	32,140	—	—	—	—	1791
1792	4,205,404	19,000,000	1,753,098	20,753,098	31,500,000	411,438	153,019	—	—	564,457	3,443,070	—	5,070,806	8,740,766	9,141,569	77,227,924	—	—	—	—	—	—	—	—	1792
1793	4,343,457	24,000,000	2,109,572	26,109,572	31,100,000	367,734	153,080	—	—	520,764	4,255,306	—	1,067,701	5,720,624	7,529,575	80,352,634	—	—	—	—	—	—	—	—	1793
1794	4,481,498	26,500,000	6,526,233	33,026,233	34,600,000	438,863	189,755	—	—	628,618	4,801,065	—	4,699,196	10,041,101	9,302,124	78,427,405	—	—	—	—	—	—	—	—	1794
1795	4,619,543	39,500,000	8,489,472	47,989,472	69,756,268	529,471	218,494	—	—	747,965	5,588,461	—	3,305,268	9,419,802	10,435,069	80,747,587	453	13,207	160,620	117,863	71,485	370,683	11,373	453,541	1795
1796	4,757,586	40,764,097	26,300,000	67,064,097	81,436,164	576,733	255,166	—	—	831,899	6,567,987	4,336	362,800	8,740,329	8,367,776	83,762,172	—	—	—	—					1796
1797	4,895,629	29,850,206	27,000,000	56,850,206	75,379,406	597,777	279,136	—	—	876,913	7,549,649	83,540	70,135	8,758,916	8,626,012	82,064,479	—	—	—	—	102,727	79,077	10,324	192,129	1797
1798	5,003,672	28,527,097	33,000,000	61,527,097	68,551,700	603,376	294,952	—	—	898,328	7,106,061	11,963	308,574	8,209,070	8,613,517	79,228,529	—	—	—	—	103,422	12,591	9,510	125,524	1798
1799	5,171,715	33,142,522	45,523,000	78,665,522	79,069,148	662,197	277,212	—	—	939,409	6,610,449	—	5,074,646	12,621,459	11,077,043	78,408,670	—	—	—	—	205,610	330,291	9,797	545,698	1799
1800	5,305,952‡	31,840,903	39,130,877	70,971,780	91,252,768	669,921	302,571	—	—	972,492	9 080,932	443	1,602,435	12,451,184	11,989,739	82,976,294	903	20,817	280,804	213,994	213,285	423,515	9,106	645,906	1800
1801	5,502,772	47,473,204	46,642,721	94,115,925	111,363,511	632,907	314,670	—	—	947,577	10,750,778	167,726	10.125	12,945,455	12,273,376	83,038,051	—	—	—	—	317,760	224,296	29,279	571,335	1801
1802	5,695,787	36,708,189	35,774,971	72,483,160	76,333,333	560,380	331,724	—	—	892,104	12,438,235	188,623	5,597	15,001,391	13,276,084	80,712,632	—	—	—	—	422,570	74,758	13,628	510,956	1802
1803	5,838,801	42,205,961	13,594,072	55,800,033	64,666,666	597,157	352,015	—	—	949,172	10,479,417	165 675	—	11,064,097	11,258,983	77,054,686	—	—	—	—	423,310	58,343	34,422	516,075	1803
1804	6,081,816	41,467,477	36,231,597	77,699,074	85,000,000	672,530	369,874	—	—	1,042,404	11,098,565	487,526	9,532	11,353,840	12,624,646	86,427,121	—	—	—	—	258,377	87,118	25,203	370,698	1804
1805	6,274,330	42,387,002	53,179,019	95,566,021	120,600,000	749,341	391,027	—	—	1,140,368	12,936,487	540,193	128,814	13,689,508	13,727,124	82,312,150	1,558	31,076	421,373	377,367	258,642	100,340	12,844	371,827	1805
1806	6,467,845	41,253,727	60,283,236	101,536,963	129,410,000	808,265	400,451	—	—	1,208,716	14,667,698	765,245	48,897	15,608,828	15,070,093	75,723,271	—	—	—	—	170,367	149,388	13,483	333,239	1806
1807	6,660,859	48,699,592	59,643,558	108,343,150	138,500,000	848,307	420,241	—	—	1,268,548	15,845,521	466,163	—	16,398,019	11,292,292	69,218,399	—	—	—	—	324,505	471,319	5,260	801,084	1807
1808	6,853,874	9,433,546	12,997,414	22,430,960	56,990,000	769,054	473,542	—	—	1,242,596	16,363,550	647,939	1,882	17,062,544	16,764,584	65,196,318	—	—	—	—	437,495	597,448	9,652	1,044,595	1808
1809	7,046,888	31,405,702	20,797,531	52,203,233	59,400,000	910,059	440,222	—	—	1,350,281	7,296,020	442,252	—	7,773,473	13,867,226	57,023,192	—	—	—	—	284,665	684,300	13,090	982,055	1809
1810	7,239,814‡	42,366,675	24,391,295	66,757,970	85,400,000	954,269	440,515	—	—	1,394,784	8,583,309	696,548	2,759,992	12,144,206	13,319,986	53,173,217	2,300	36,406	551,684	495,969	169,375	707,376	8,001	884,752	1810
1811	7,479,729	45,294,043	16,022,790	61,316,833	53,400,000	768,852	463,650	—	—	1,232,502	13,313,222	1,040,237	8,309	14,431,388	13,601,808	48,005,588	—	—	—	—	501,435	638,773	15,660	1,155,868	1811
1812	7,719,555	30,032,109	8,495,127	38,527,236	77,030,000	760,624	509,373	—	—	1,269,997	8,958,777	710,427	12,887,900	22,639,032	22,279,121	45,209,738	—	—	—	—	497,905	608,340	2,495	1,108,740	1812
1813	7,959,381	25,008,182	2,847,865	27,855,997	22,005,000	674,853	491,776	—	—	1,166,629	13,224,623	835,655	26,184,435	40,524,844	39,190,520	55,962,828	—	—	—	—	290,435	814,029	10,755	1,115,219	1813
1814	8,199,208	6,782,272	145,169	6,927,441	12,965,000	674,633	484,577	—	—	1,159,210	5,998,772	1,135,971	23,377,911	34,559,536	38,028,230	81,487,846	—	—	—	—	477,140	620,951	4,180	1,102,275	1814
1815	8,439,034	45,974,403	6,583,350	52,557,753	113,041,274	854,295	513,833	—	—	1,368,128	7,282,942	1,287,959	35,264,320	50,961,237	39,582,493	99,333,660	3,000	43,748	1,043,065	748,121	3,175	17,308	—	20,483	1815
1816	8,678,860	64,781,896	17,188,156	81,920,452	147,103,000	800,760	571,459	—	—	1,372,219	36,503,874	1,717,985	9,494,486	57,171,421	48,244,495	127,334,934	3,260	48,673	961,782	804,422	—	28,575	28,209	56,785	1816
1817	8,918,637	68,313,500	19,358,069	87,671,569	99,250,000	800,725	590,187	—	—	1,399,912	26,283,348	1,991,226	734,542	33,333,592	40,877,646	123,491,965	3,459	52,089	1,002,973	919,515	—	607,783	39,484	647,267	1817
1818	9,138,377	93,281,133	121,750,000	606,089	619,096	—	—	—	—	1,225,185	17,176,385	2,606,564	8,765	21,593,936	35,104,875	103,466,634	3,618	59,473	1,130,235	1,035,832	242,940	1,070,454	31,670	1,345,064	1818
1819	9,398,339	50,976,888	19,165,683	70,142,521	87,125,000	612,930	647,821	—	—	1,260,751	20,283,608	3,274,422	2,291	24,605,665	24,004,199	95,529,648	4,000	67,586	1,204,737	1,117,861	258,615	1,140,000	26,710	1,425,325	1819
1820	9,638,131‡	51,683,640	18,008,029	69,691,669	74,450,000	619,048	661,119	—	—	1,280,167	15,005,612	1,635,871	3,040,824	20,881,493	21,763,024	91,015,566	4,500	72,492	1,111,927	1,160,926	1,319,030	501,680	44,075	1,864,786	1820
1821	9,959,965	43,671,894	21,302,488	64,974,382	62,585,724	619,896	679,062	—	—	1,298,958	13,004,447	1,212,966	5,000,324	19,573,703	19,090,572	89,987,428	4,650	78,808	1,059,087	1,184,233	189,325	825,762	3,890	1,018,977	1821
1822	10,281,765	49,874,079	22,236,202	72,160,281	83,241,541	628,150	696,549	—	—	1,324,699	17,589,761	1,803,581	—	20,232,427	17,676,592	93,546,677	4,709	82,763	1,117,490	1,167,572	88,980	805,806	20,723	915,509	1822
1823	10,603,565	47,155,408	27,543,622	74,699,030	77,579,267	639,921	671,766	—	24,879	1,336,566	19,088,433	916,523	—	20,540,666	15,314,171	90,875,877	4,043	84,860	1,130,115	1,156,995	72,425	895,550	—	967,975	1823
1824	10,925,365	50,649,500	25,337,157	75,986,657	80,549,007	669,973	697,580	—	21 610	1,389,163	17,878,325	984,418	5,000,000	24,381,212	31,898,538	90,269,778	5,182	84,860	1,197,758	1,188,019	93,200	1,752,477	12,620	1,858,297	1824
1825	11,247,187	66,944,745	32,590,643	99,535,388	96,340,075	700,788	699,263	—	23,061	1,423,112	20,098,718	1,216,090	5,000,000	26,840,858	23,585,804	83,788,433	5,677	94,052	1,306,525	1,229,043	156,385	1,564,583	14,926	1,735,894	1825
1826	11,565,966	53,055,710	24,539,612	77,595,322	84,974,477	737,978	762,154	—	34,059	1,534,191	23,341,331	1,393,735	—	25,260,434	24,103,398	81,054,060	6,150	94,052	1,447,703	1,366,712	92,245	2,002,090	16,344	2,110,679	1826
1827	11,890,788	58,921,691	23,493,136	82,324,827	79,484,068	747,170	833,240	—	40,198	1,620,608	19,712,283	1,495,845	—	22,966,363	22,656,764	73,987,357	7,003	105,836	1,524,633	1,468,959	181,565	2,869,200	23,557	3,024,342	1827
1828	12,212,549	50,669,669	21,595,017	72,264,686	88,500,824	812,619	889,355	—	39,418	1,741,392	23,205,523	1,018,308	—	24,763,629	25,459,479	67,475,044	7,580	105,836	1,659,915	1,689,945	140,145	1,575,600	25,636	1,741,381	1828
1829	12,534,372	55,700,193	16,658,478	72,358,671	74,492,527	650,143	556,618	—	54,037	1,260,798	22,681,965	1,517,175	—	24,827,627	25,044,358	58,421,414	8,004	115,000	1,707,418	1,782,182	295,717	1,994,578	16,580	2,306,875	1829
1830	12,866,920‡	59,462,029	14,387,479	73,849,508	70,876,920	575,056	552,243	1,419	63,053	1,191,776	21,922,391	2,329,356	—	24,844,116	24,585,281	48,565,406	8,450	115,176	1,850,588	1,932,708	643,105	2,495,400	17,115	3,155,620	1830
1831	13,277,414	61,277,057	20,033,526	81,310,583	103,191,124	619,575	613,827	877	33,568	1,267,847	24,224,441	3,210,815	—	28,526,820	30,038,446	39,123,192	8,686	115,486	1,997,811	1,936,122	714,270	3,175,600	33,603	3,923,473	1831
1832	13,698,667	63,137,470	24,039,473	87,176,943	101,029,266	656,809	661,827	181	90,633	1,409,450	28,465,237	2,623,381	—	31,865,561	34,356,698	24,322,235	9,205	104,466	2,258,570	2,266,171	798,435	2,579,000	23,620	3,401,055	1832
1833	14,119,916	70,317,698	19,822,735	90,140,443	108,118,311	749,482	754,819	545	101,305	1,606,151	29,032,508	3,967,632	—	33,948,426	24,257,298	7,001,699	10,127	119,916	2,617,011	2,930,414	978,550	2,759,000	28,160	3,765,710	1833
1834	14,541,162	81,024,162	23,312,811	104,336,973	126,521,332	857,098	778,995	340	122,474	1,758,907	16,214,957	4,857,600	—	21,791,935	24,601,982	4,760,082	10,638	119,916	2,523,749	2,910,605	3,954,270	3,415,002	19,151	7,388,423	1834
1835	14,962,413	101,189,082	20,504,495	121,693,577	149,805,742	885,481	816,645	340	122,474	1,824,940	19,391,310	14,757,600	—	35,430,087	17,573,141	37,733	10,770	112,774	2,993,356	2,757,350	2,186,175	3,443,003	39,489	5,668,667	1835
1836	15,383,669	106,916,680	21,746,360	128,663,040	189,980,035	897,321	839,226	454	145,102	1,822,103	23,409,940	24,877,179	—	50,826,796	20 868,164	37,513	11,091	118,264	3,408,323	3,841,766	4,135,700	3,606,100	23,100	7,764,900	1836
1837	15,804,912	95,564,414	21,854,962	117,419,376	140,989,217	809,343	952,576	1,104	153,661	1,896,684	11,169,290	6,776,236	2,992,989	27,883,853	37,265,037	1,878,224	11,767	141,242	4,236,779	3,544,630	1,148,305	2,096,010	55,588	3,299,898	1837
1838	16,226,139	96,038,821	12,452,795	108,486,616	113,717,404	819,801	982,416	2,791	190,632	1,995,640	16,158,800	3,081,939	12,716,820	33,019,382	39,455,438	4,857,660	12,519	134,818	4,238,733	4,430,662	1,809,595	2,333,243	53,702	4,206,540	1838
1839	16,647,327	103,533,891	17,494,525	121,028,416	162,092,132	829,096	1,062,445	5,149	199,789	2,096,479	23,137,924	7,076,447	3,857,276	33,881,242	37,614,936	11,983,738	12,780	133,999	4,484,657	4,636,536	1,355,885	2,189,296	31,286	3,576,467	1839
1840	17,063,353‡	113,895,634	18,190,312	132,085,946	107,141,519	895,610	1,082,815	4,155	198,184	2,180,764	13,499,502	3,292,285	5,589,547	25,032,193	28,226,533	5,125,073	13,468	155,739	4,543,522	4,718,236	1,675,302	1,726,703	24,627	3,426,632	1840
1841	17,560,082	106,382,722	15,469,081	121,851,803	127,946,177	945,057	1,010,599	746	174,342	2,130,744	14,487,216	1,365,627	13,659,317	30,519,477	31,797,530	6,737,398	13,778	155,026	4,407,726	4,499,528	1,091,597	1,132,750	15,973	2,240,321	1841
1842	18,151,499	92,969,996	11,721,538	104,691,534	100,162,087	970,658	892,072	4,701	224,960	2,092,391	18,187,908	1,335,797	14,808,735	34,773,744	32,936,876	15,028,486	13,733	149,732	4,546,849	5,674,752	1,834,170	2,332,750	23,333	4,190,754	1842
1843	18,542,917	77,793,783	6,552,697	84,346,480§	64,753,799§	1,003,932	917,804	5,373	231,494	2,158,603	7,046,843‖	897,818‖	12,551,409‖	20,782,410‖	12,118,105‖	26,898,953	13,814	142,295	4,296,225	4,374,754	8,108,797	3,834,750	24,283	11,967,830	1843
1844	19,234,332	99,715,179	11,484,867	111,200,046	108,435,035	1,061,856	946,060	6,909	265,270	2,280,095	26,183,570	2,059,939	1,877,847	31,198,555	33,642,010	26,143,996	14,103	144,687	4,237,288	4,296,513	2,230	2,235,550	23,957	7,687,767	1844
1845	19,825,749	99,299,776	15,846,830	114,646,606	117,254,564	1,088,680	1,002,303	6,492	319,527	2,417,002	27,528,112	2,077,022	—	29,941,853	30,490,408	16,801,647	14,183	143,940	4,289,841	4,320,732	3,756,447	1,873,200	38,948	5,668,595	1845
1846	20,327,162	102,141,893	11,346,623	113,488,516	121,691,797	1,123,999	1,090,192	6,287	341,606	2,562,084	26,712,667	2,694,452	—	29,699,967	27,632,282	24,256,495	14,601	152,865	3,487,199	4,084,257	4,034,177	2,558,580	41,208	6,633,965	1846
1847	20,808,582	150,637,464	8,011,158	158,648,622	146,545,638	1,235,682	1,198,523	5,631	399,210	2,839,046	23,747,864	2,498,355	28,900,765	55,338,168	60,520,851	45,659,659	15,146	153,818	3,955,893	3,979,570	20,221,385	2,374,450	61,836	22,657,671	1847
1848	21,506,187	182,904,121	21,128,010	154,032,131	154,998,928	1,341,819	1,331,332	16,068	411,323	3,154,042	31,757,070	3,328,642	21,293,780	56,992,479	60,655,143	65,804,450	16,159	163,208	4,371,077	4,326,550	3,775,512	2,040,050	64,157	5,879,720	1848
1849	22,472,981	182,666,955	13,088,865	145,755,820	147,857,439	1,418,072	1,453,549	20,870	441,525	3,334,016	28,346,738	1,688,959	29,075,815	59,796,892	56,386,422	64,704,493	16,749	163,703	4,905,176	4,479,049	9,007,761	2,114,950	41,984	11,164,695	1849
1850	23,191,876†	136,946,912	14,951,808	151,898,720	178,138,318	1,540,769	1,468,738	44,942	481,005	3,535,454	39,668,686	1,859,894	4,056,500	47,649,388	44,604,718	64,228,298	18,417	178,672	5,552,971	5,212,953	31,981,733	1,866,100	44,467	33,892,301	1850
1851	23,967,632	196,689,718	21,698,298	218,388,011	216,224,932	1,663,917	1,524,915	62,390	521,217	3,772,439	49,017,567	2,352,305	207,664	52,762,704	48,476,104	62,560,395	19,796	196,290	6,727,867	6,278,402	62,614,492	774,397	99,635	63,488,524	1851
1853	25,432,157	213,417,697	17,558,460	230,976,157	267,978,617	2,013,154	1,789,238	90,520	514,098	4,407,010	58,931,865	1,667,084	16,372	61,500,102	54,577,061	56,336,157	22,320	217,743	5,940,725	7,982,757	55,213,907	9,077,571	67,059	64,358,537	1853
1854	26,331,519	253,390,570	24,850,194	278,241,064	304,562,331	2,238,783	1,887,512	95,036	581,571	4,802,902	64,224,190	8,470,798	1,950	73,802,291	75,473,119	44,975,456	23,548	219,935	6,955,586	8,577,424	52,094,595	8,619,270	42,688	60,756,503	1854
1855	27,237,510	246,708,553	28,448,293	275,156,846	261,468,520	2,420,091	2,021,625	115.045	655,240	5,212,001	53,025,794	11,497,049	800	65,351,374	66,398,733	39,969,731	24,410	227,908	7,342,136	9,963,342	52,795,457	3,501,245	16,030	56,312,732	1855
1856	28,054,635	310,586,330	16 378,578	326,964,908	314,639,942	2,401,687	1,796,888	89,715	583,362	4,871,652¶	64,022,863	8,917,644	200	74,056,899	73,185,644	30,963,910	25,565	239,642	7,620,822	10,405,286	59,343,365	5,196,670	27,106	64,567,142	1856
1857	28,837,516	338,985,065	23,975,617	362,960,682	360,890,141	2,377,094	1,357,964	86,873	618,911	4,940,843	63,875.905	8,829,486	3,900	68,969,212	71,072,313	29,060,387	26,586	242,601	7,353,951	11,507,670	25,183,138‖	1,601,644‖	63,510‖	26,848,293‖	1857
1858	29,702,641	—	—	—	—	—	—	—	—	—	41,789,621	3,531,716	23,716,300	70,273,869	81,585,467	—	—	—	—	—	—	—	—	—	1858
1859	30,593,720	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1859
1860	31,511,531	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1860

* Among the most important receipts aggregated in this total are the direct taxes levied from 1792 to 1836. The amounts in the several years were as follows—1792, $208,943; 1793, $337,706; 1794, $274,000; 1795, $337,755; 1796, $475,290; 1797, $575,491; 1798, $644,358; 1799, $779,136; 1800, $1,543,620; 1801, $1,582,377; 1802, $828,464; 1803, $287,059; 1804, $101,139; 1805, $43,631; 1806, $75,865; 1807, $47,784; 1808, $27,370; 1809, $11,562; 1810, $19,879; 1811, $9,962; 1812, $5,762; 1813, $8,561; 1814, $3,882,482; 1815, $6,840,733; 1816, $9,378,344; 1817, $4,512,288; 1818, $1,219,613; 1819, $313,244; 1820, $137,847; 1821, $98,377; 1822, $88,617; 1823, $44,580; 1824, $40,865; 1825, $28,102; 1826, $28,228; 1827, $22,513; 1828, $19,671; 1829, $25,833; 1830, $29,141; 1831, $17,440; 1832, $18,422; 1833, $3,153; 1834, $4,216; 1835, $14,723; 1836, $1,099.

† Including in the years named.. as follows: *Railroad Route*—1850, 6,886 miles; 1851, 8,255 miles; 1852, 10,146 miles; 1853, 12,415 miles; 1854, 14,440 miles; 1855, 18,385 miles; 1856, 20,375 miles; 1857, 22,530 miles; 1858, —— miles; 1859, —— miles; 1860, —— miles. *Steamboat Route*—1850, 9,725 " ; 1851, 21,722 " ; 1852, 24,119 " ; 1853, 26,954 " ; 1854, 23,834 " ; 1855, 23.218 " ; 1856, 23.550 " ; 1857, 15,245 " ; 1858, —— " ; 1859, —— " ; 1860, —— " .

In 1856-7 the total transportation of mails was 74,906,067 miles, viz.—by railroad 24,267,944 miles, by steamboat 4,518,119 miles, by coach 19,090,930 miles, and by inferior conveyances 27,029,074 miles.

‡ Returned by census. § For nine months only. ‖ For six months only. ¶ Previous to this year many vessels that had been wrecked, broken up, or sold had been retained on the books.

CHRONOLOGICAL CHART OF UNITED STATES HISTORY.

AREA AND POPULATION OF THE UNITED STATES OF AMERICA.

	Total area, sq. miles.	Number of States.	Area of States, square miles.	Aggregate Population.
1790—1st Census	820,680	13	381,103	3,929,327
1800—2d Census	820,680	16	464,383	5,305,925
1810—3d Census	1,720,259	17	504,347	7,239,814
1820—4th Census	1,787,159	23	732,694	9,638,131
1830—5th Census	1,787,159	24	800,074	12,866,020
1840—6th Census	1,787,159	26	908,515	17,069,453
1850—7th Census	2,936,166	31	1,466,105	23,191,876
1860—Estimate	2,963,666	35	—	30,986,851

PRESIDENTS OF THE UNITED STATES.

1. George Washington 1789-1797
2. John Adams 1797-1801
3. Thomas Jefferson 1801-1809
4. James Madison 1809-1817
5. James Monroe 1817-1825
6. John Quincy Adams 1825-1829
7. Andrew Jackson 1829-1837
8. Martin Van Buren 1837-1841
9. William Henry Harrison 1841-1841
10. John Tyler 1841-1845
11. James Knox Polk 1845-1849
12. Zachary Taylor 1849-1850
13. Millard Fillmore 1850-1853
14. Franklin Pierce 1853-1857
15. James Buchanan ..... 1857- —

1600 1610 1620 1630 1640 1650 1660 1670 1680 1690 1700 1710 1720 1730 1740 1750 1760 1770 1780 1790 1800 1810 1820 1830 1840 1850 1860

1539, Iroquois Confederacy.

Discovered 1496; San Augustine settled 1565.

FLORIDA under SPAIN.

96, Pensacola.

72, Eries conquered by Iroquois.
73, Marquette reaches the Mississippi River.
79, Expedition of La Salle.

82, La Salle descends the Mississippi
85, Arkansas Post.

83, French at Detroit. 83, Kaskaskia.

99, Iberville.

2, Mobile.

1, Fort Detroit.

12, Grant to Crozat.

16, Natchez.

11, Vincennes.

20, Law's Mississippi scheme.
22, Charlevoix's visit.
24, Catholic religion established.

28, Natchez Indians
31, French population 5,000. [destr.

21, Charlevoix's visit.

36, Expedition against Chickasaws.

40, Cotton cultivated.

41, Tennessee explored.

48, Ohio Company.
Kentucky explored.

LOWER LOUISIANA.

51, Sugar-cane from Hayti.

55, Pop. 7,000 (French).

UPPER LOUISIANA.

50, Shawanese arrive from Georgia.

LOUISIANA.

56, Colony.

Henry's travels. 60, Delawares from Pennsylvania.

England.—Pontiac's War. 64, Treaty of Niagara.

LOUISIANA 68, Indian War. 69, Daniel Boone in Kentucky.

68, Carver's travels.

East of the Miami Confederacy. 75, Boonesboro'. 79, Nashville.

Mississippi River.

SPANISH PROVINCES under the VICEROYALTY of MEXICO.

83, San Francisco.

UNEXPLORED COUNTRY.

63, Ceded to Spain. 66, Carver's travels. Ceded 63, St. Louis. 69, Pop. 70, Given up

LOUISIANA

78, Dubuque's purchase.

West of the Mississippi River.

85, Pop. 33,000.

63, Ceded to Spain. 13,538 to Spain.

63, Ceded to LOUISIANA.

74, Yazoo grant.

90, Columbia River discovered.

1800, Retroceded to France. 1803, Purchased by United States.

3, Expedition of Lewis and Clarke. 1804, LOUISIANA TERRITORY. 7, Pike's Exploring Expedition.

10, Astoria. 13, Fort George. 18, Treaty with Great Britain. 24, Fort Vancouver.

12, MISSOURI TERRITORY. 19, North limit fixed at 49° N. 23, Long's Expedition. 28, Cherokees from Georgia.

32, Ft. Hall.

Ft. Walla-walla.

INDIAN TERRITORY.

38, Iowa Territory. 43,112

1849. Minnesota Ter.

1821. MEXICAN REPUBLIC. 32, Colony. 35, Revolt. 36, Republ. of Texas. 43, Americans in California, Mormons in Deseret. 48, Ceded to U. States 45, Adm. 212,592

Calif. and N. Mex. Ter. 17,380 Adm. 92,547

1846 1847 1848 1849 1850 1860

1600, Roanoke colony.

6, SOUTH VIRGINIA. (London Company.) 7, Jamestown. 16, Tobacco cultivated. 19, Colonial Assembly. 22, White population 4,000. 29, Indian War. 32, Williamsburg. 44, Indian War. 48, First grant to Clarendon.

VIRGINIA.

34, St. Mary's. 42, Ind. War.

MARYLAND.

60, Second grant to Clarendon. Locke's Constitution. 80, Charleston. Huguenots.

CAROLINA. 96, Rice cultivated. 7,000——5,000 2, Cotton and silk. 6, Spanish invasion.

76, Bacon's Rebellion. 40,000 25,000

26, Printing press introduced. 32, Washington b'n 85,000 85,000

53, Washington sent to the Ohio.

61, Mason & Dixon's Line. 63, Ind. War. 174,000 341,000

9, Hudson River discovered. 16, Bergen. 23, Fort Nassau. Swedish charter. 29, Von Twiller. 38, Kieft. 43, NEW SWEDEN. 47, Stuyvesant. 55,

NEW NETHERLANDS. 13, New Amsterdam.

6, 4, Nicholls Gov. NEW YORK. 30,000 2, 31, 50,000

6, 4, NEW JERSEY. 76, EAST JERSEY. 15,000 2, WEST JERSEY. 81, 81, 84, Pop. 7,000. TERRITORIES.

81, Philadelphia. PENNSYLVANIA. 20,000 10, DELAWARE. 38, 60,000 100,000 100,000 35,000

14, Capt. John Smith explores the coast and names the country— NEW ENGLAND.

6, NORTH VIRGINIA. (Plymouth Company.) 7, Gilbert's colony. 2, Gosnold discovers Massachusetts Bay. 4, French on Kennebec.

33, Windsor. 35, Saybrook. 36, New Haven. 44, 6, 5

3, Providence. 14, R. Island. 10,000 10,000

CONNECTICUT.

RHODE ISLAND and PROVIDENCE PLANTATIONS.

23, Dover. LACONIA. 4, 1, 24, Salem. MASSACHUSETTS BAY COLONY.

80, NEW HAMPSHIRE. 10, 92, NEW HAMPSHIRE. 10,000 9, 9,

29, Plymouth. 35, Gorges' patent. 47, Death of Gorges. 52, Annexed to Mass. PLYMOUTH COLONY. 92 Salem witchcraft. 70,000 4, Deerfield burned. MASSACHUSETTS. 39, Paper money. 41, Fanueil Hall. Louisburg. 220,000

United with Massachusetts. 41, 45, Exped. ag'st 30,000 41, NEW HAMPSHIRE. 102,000 72, Stage coach. 352,000

1700, Yamasee War.

1732, Georgia. 32, Savannah. 6,000 30,000 45,000 27,000 93,000 181,000 300,000 174,000 341,000 37,000 138,000 71, 163,338 238,000 262,000 58,000

SOUTH CAROLINA. NORTH CAROLINA. GEORGIA.

REVOLUTION.

80, Charleston taken. 81, Surrender of Cornwallis. 77, Saratoga. 80, Arnold's treason. 75, Bunker Hill. 77, Bennington.

1763, Ceded to Great Britain by France and Spain.

1763, Pontiac's War. 1765, Stamp Act. 1767, Townshend Acts. 1770, Boston Massacre. 1773, Tea destroyed in Boston harbor. 1774, Boston Port Bill. 1775, Battle of Lexington. 1776, Declaration of Independence. 1777, Battle of Bennington. 1778, Battle of Monmouth. 1779, Paul Jones. 1780, Arnold's treason. 1781, Surrender of Cornwallis. 1783, Peace with Great Britain.

TERRITORY NORTHWEST of the OHIO RIVER. 1787, 73,077 2, Adm. 6, Adm. 89, Ter. SW. Ohio 35,791 83, Ceded to United States of America. 82,548 249,073 393,751 748,308 319,728 434,373 59,096 184,139 340,120 238,141 69,110 85,416 141,510 378,717— 96,540

INDIANA TERRITORY. 4,875 2, Adm. 45,365 Mari-etta 220,955 105,602 162,101 345,591 478,103 880,200 341,548 602,361 64,273 211,949 586,756 251,002 69,122 154,465 183,762 423,245—151,719

MICHIGAN TERRITORY. 4,762 31,639 9, 12,282 Illinois Territor. 24,520 234,760 406,511 261,727 252,433 415,115 555,500 974,622 380,546 801,091 72,674 245,555 959,049 262,642 79,413 234,846 214,360 472,040—228,705

18, Adm. 55,211 147,178 581,434 564,317 422,813 340,987 502,741 638,829 1065,379 407,350 1049,458 72,749 277,575 1372,812 275,202 80,059 279,771 244,161 523,287 298,335

16, Adm. 4,875 TORY. 9, 12,282 Illinois Territor. 24,520 234,760 406,511 261,727 252,433 415,115 555,500 974,622 380,546 801,091 72,674 245,555 959,049 262,642 79,413 234,846 214,360 472,040—228,705

1819, Florida Territory. 34,730 687,917 681,904 516,823 581,185 737,987 1211,405 447,040 1348,253 76,748 320,823 1918,608 297,675 97,199 280,652 269,328 610,408 399,455

37, 30 945 Territory. 37, Adm. 212,267 476,183 685,866 1519,467 779,828 829,210 54,477 691,392 594,398 753,419 1239,797 470,019 1724,033 78,085 373,306 2428,921 309,978 108,830 291,948 284,574 737,699 501,793

46, Mormons expelled 851,470 988,416 1980,329 982,405 1002,717 45, Adm. 87,445 906,185 668,507 869,089 1421,661 583,034 2311,786 91,532 489,555 3097,394 370,792 147,545 314,120 317,976 994,514 583,169

48, Adm. 305,391 397,654 1242,917 509,374 552,100 935,090 110,725 2542,960 569,499 3470,059 1133,123

1820, Missouri Compromise.

1821, Florida ceded by Spain. 1828, Tariff of Abominations. 1832, Nullification. 1833, Compromise Tariff. 1835, Texas Revolution. 1836, Texas Independence. 1837, Financial Crisis. 1842, Tariff. 1845, Texas annexed. 1846, Oregon Treaty. 1846, War with Mexico. 1848, Gold discovered in California. 1850, Compromise. 1854, Kansas-Nebraska Act. 1857, Financial Crisis. 1860, Lincoln elected. 1861, Secession. 1861, War of Secession. 1863, Emancipation Proclamation. 1865, Assassination of Lincoln. 1867, Alaska purchased. 1869, Pacific Railroad completed. 1873, Financial Crisis. 1876, Centennial Exhibition. 1877, Electoral Commission. 1879, Resumption of Specie Payments. 1881, Assassination of Garfield. 1884, Cleveland elected. 1886, Statue of Liberty. 1888, Harrison elected. 1889, Cleveland elected. 1890, McKinley Tariff. 1892, Harrison elected. 1893, Financial Crisis. 1894, Cleveland elected. 1896, McKinley elected. 1898, War with Spain. 1900, McKinley elected. 1901, Assassination of McKinley. 1904, Roosevelt elected. 1908, Taft elected. 1912, Wilson elected. 1913, Tariff. 1914, War in Europe. 1916, Wilson elected. 1917, War with Germany. 1918, War ended. 1920, Harding elected. 1921, Harding died. 1924, Coolidge elected. 1928, Hoover elected. 1929, Financial Crisis. 1932, Roosevelt elected. 1933, Roosevelt inaugurated. 1936, Roosevelt elected. 1939, War in Europe. 1940, Roosevelt elected. 1941, War with Japan. 1944, Roosevelt elected. 1945, Roosevelt died. 1945, War ended. 1948, Truman elected. 1949, Atlantic Pact. 1950, War in Korea. 1952, Eisenhower elected. 1953, Eisenhower inaugurated. 1953, Korean War ended. 1956, Eisenhower elected. 1957, Sputnik launched. 1958, Alaska admitted. 1959, Hawaii admitted. 1960, Kennedy elected. 1961, Kennedy inaugurated. 1962, Cuban Crisis. 1963, Kennedy assassinated. 1964, Johnson elected. 1965, Johnson inaugurated. 1968, Johnson declined renomination. 1968, Nixon elected. 1969, Nixon inaugurated. 1969, Moon landing. 1972, Nixon elected. 1973, Nixon inaugurated. 1973, Vice President Agnew resigned. 1973, Gerald Ford inaugurated Vice President. 1973, Watergate Scandal. 1973, Vietnam War ended. 1974, Nixon resigned. 1974, Gerald Ford inaugurated President. 1974, Nelson Rockefeller inaugurated Vice President. 1976, Jimmy Carter elected. 1977, Jimmy Carter inaugurated. 1978, Panama Canal Treaty. 1979, Iranian Crisis. 1980, Ronald Reagan elected. 1981, Ronald Reagan inaugurated. 1981, Iranian Crisis ended. 1982, Economic Crisis. 1984, Ronald Reagan elected. 1985, Ronald Reagan inaugurated. 1986, Iran-Contra Affair. 1988, George Bush elected. 1989, George Bush inaugurated. 1989, Berlin Wall opened. 1990, Germany reunited. 1991, Persian Gulf War. 1992, Bill Clinton elected. 1993, Bill Clinton inaugurated. 1994, Republican Congress elected. 1995, Oklahoma City bombing. 1996, Bill Clinton elected. 1997, Bill Clinton inaugurated. 1998, Impeachment of Clinton. 1999, Clinton acquitted. 2000, George W. Bush elected. 2001, George W. Bush inaugurated. 2001, September 11 attacks. 2001, War in Afghanistan. 2003, War in Iraq. 2004, George W. Bush elected. 2005, George W. Bush inaugurated. 2005, Hurricane Katrina. 2006, Democrats win Congress. 2008, Barack Obama elected. 2009, Barack Obama inaugurated. 2010, Republicans win Congress. 2011, Osama bin Laden killed. 2012, Barack Obama elected. 2013, Barack Obama inaugurated. 2014, Republicans win Congress. 2015, Pope Francis visits U.S. 2016, Donald Trump elected. 2017, Donald Trump inaugurated. 2018, Democrats win Congress. 2019, Impeachment of Trump. 2020, Trump acquitted. 2020, Joe Biden elected. 2021, Joe Biden inaugurated. 2021, Capitol Riot. 2022, Russia invades Ukraine. 2022, Republicans win Congress. 2023, Kevin McCarthy elected Speaker. 2024, Donald Trump elected. 2025, Donald Trump inaugurated.

1600 1610 1620 1630 1640 1650 1660 1670 1680 1690 1700 1710 1720 1730 1740 1750 1760 1770 1780 1790 1800 1810 1820 1830 1840 1850 1860

[The States and Territories constituting the United States have hitherto been arranged under the grand divisions of "Eastern" and "Western," the former subdivided into North, Middle, and South, and the latter into North and South. This classification was sufficient and correct so long as the territorial limits of the Union were bounded westwardly by the Rocky Mountains; but since their extension to the Pacific Ocean another and more comprehensive nomenclature and arrangement has become not only desirable, but absolutely indispensable. The west of former days is now the middle region of the country. In the adoption of a new classification, however, it is not proposed to blot out the ancient landmarks, but to so adjust and add to them as the exigencies of the new order of things so evidently demands. The following table classifies the several States and Territories in as nearly geographical order as their political limits will permit:

Atlantic or Eastern	*North*	Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut.
	Middle	New York, New Jersey, Pennsylvania, Delaware, Maryland.
	District of Columbia.	
	South	Virginia, North Carolina, South Carolina, Georgia.
Gulf or Southern		Florida, Alabama, Mississippi, Louisiana, Texas.
Interior or Middle.	*North*	Ohio, Indiana, Michigan, Illinois, Wisconsin, Iowa, Minnesota, Nebraska.
	South	Kentucky, Tennessee, Missouri, Arkansas, Kansas, Indian Territory.
Pacific or Western.	*North*	Washington, Oregon.
	South	California, Utah, New Mexico.

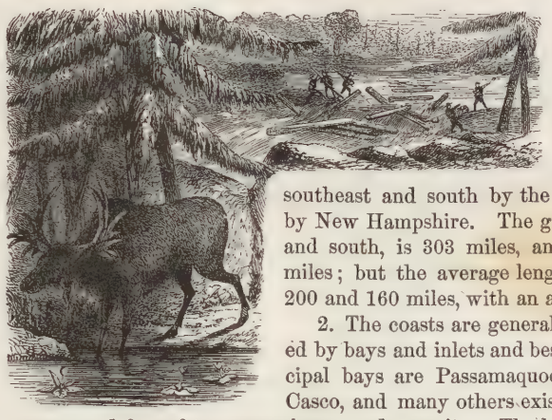
This classification divides the whole territory into four great natural sections—the Atlantic or Eastern, including all the States the greater portions of which occupy the Atlantic slope and plain; the Gulf or Southern, which includes the States occupying with little territorial exception the Gulf slope, and the waters of which are mainly carried to the Gulf of Mexico; the Interior or Middle, which comprises all the States and Territories drained by the constituents of the Mississippi not included in the first two regions, or which are drained into the great northern lakes; and the Pacific or Western, which is composed of the States and Territories which lie west of the crest of the Rocky Mountains, and which, with the exception of the eastern portion of New Mexico, drain into the Pacific Ocean.

The territorial extent of these several regions in 1850 was as follows:

Regions.	Area, sq. m.	Proportionate area.	Regions.	Area, sq. m.	Proportionate area.
Atlantic or Eastern	397,103	12.9	Interior or Middle	1,180,949	40.3
Gulf or Southern	435,905	14.9	Pacific or Western	940,209	31.9

The total area, thus distributed, is 2,936,166 square miles. To this should be added the Territory of Arizona, purchased from Mexico in 1854, containing 27,500 square miles. With this the area of the United States is 2,963,666 square miles.]

STATE OF MAINE.

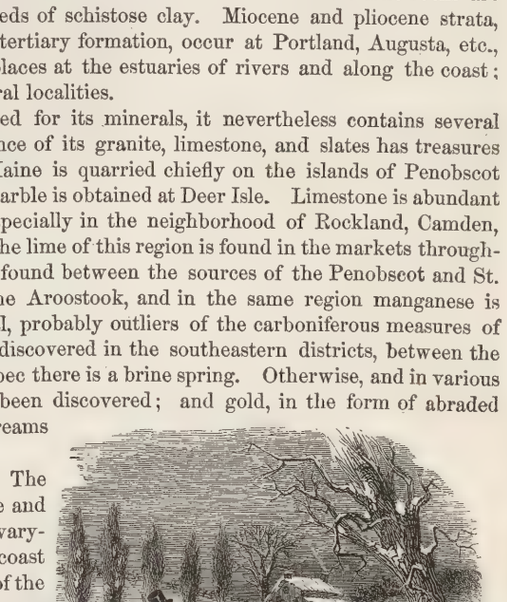


1. Maine, the most easterly of the United States, is situated between latitudes 42° 57′ and 47° 32′ north, and longitudes 66° 52′ and 71° 6′ west; and is bounded on the northwest and north by Canada, on the east by New Brunswick, on the southeast and south by the Atlantic Ocean, and on the west by New Hampshire. The greatest extension of the State, north and south, is 303 miles, and the greatest width thereof 212 miles; but the average length and breadth are not more than 200 and 160 miles, with an area of 31,766 square miles.

2. The coasts are generally bold and rugged, deeply indented by bays and inlets and beset by numerous islands. The principal bays are Passamaquoddy, Frenchman's, Penobscot, and Casco, and many others exist which furnish a series of harbors unsurpassed for safety, convenience, and capacity. The harbor of Portland is one of the best on the Atlantic coast. Mt. Desert Island, in Frenchman's Bay, is the largest of the islands, and its peaks rise 1,000 to 1,800 feet above the sea. The other larger are Deer Isle, Isle Haut, etc. The Isles of Shoals belong partly to New Hampshire; and Deer, Campobello, and Menan, off the east coast, to New Brunswick. The coast extends from Quoddy Head to Kittery Point, 278 miles, but including the islands and all irregularities, the shore line measures 2,486 miles, or one mile of coast to every 12.78 square miles of land surface.

3. The Apalachian chain, which culminates in the White Mountains of New Hampshire, is continued northward along the western border of Maine, and through Canada to Cape Gaspé, and forms the watershed of the streams flowing into the lower St. Lawrence, and those which flow to the upper St. John. The southern limit of the basin of the St. John is formed by an irregular chain of highlands stretching from the main ridge eastward across this State, and terminating at Mars Hill, near the New Brunswick line. These chains are not of great elevation, but contain peaks varying in height from 2,000 to 4,000 feet; and in the southern chain Mt. Katahdin (latitude 46° and longitude 69°) rises 5,385 feet above sea-level. South, and immediately succeeding this mountain region, the surface gradually subsides into a beautifully varied region of hills and valleys and undulating plains, and replete with the most inviting scenery, embracing lakes innumerable and river falls and rapids in almost every stream. Lakes, indeed, are a prominent characteristic of the whole State, and in all occupy an area equal to a tenth of its surface. This middle region is the largest as well as the fairest section of the State. Its southern limit is a line drawn across the lower falls of the rivers, and all south of this line, the tide-water region, is comparatively an inferior tract, in many parts sandy, and generally rocky. Extensive marshes border on the Matawamkeag, a tributary of the Penobscot from the east.

4. The northern portion of the State is drained by the Walloostook, Allagash, and Aroostook, constituents of the St. John, which has its lower course in New Brunswick. The St. Croix forms the southern part of the boundary toward New Brunswick, and falls into Passamaquoddy Bay, an irregular sheet of water extending 20 miles farther to the ocean, and embracing several subsidiary bays and numerous islands, on one of which stands Eastport, the most easterly town of the United States. From Quoddy Head to Penobscot Bay no large river empties into the sea. All the waters which descend from the southern side of the highlands flow down the Penobscot, the chief tributaries of which are the Sebois and Matawamkeag from the north, and the Piscataquis, a large stream, from the west. This river has a total length of 300 miles, and is navigable to the head of tide at Bangor, 60 miles from the sea. The Androscoggin and the Kennebec reach the sea in a single stream through a channel formed by the peninsula of Phippsburg on the west, and numerous islands on the east. The Kennebec has its sources in the highlands, from which issue the southeastern branches of the Chaudiere, and after passing through Moosehead Lake, has a southerly but winding course to the sea. At Merrymeeting Bay it is joined by the Androscoggin, which is formed in New Hampshire by the union of the Magalloway River and the outlet of the Moosetocmaguntic and Umbagog lakes. Both these rivers have numerous falls, the principal of which, in the Androscoggin, are at Rumford, Livermore, Lewiston, and Brunswick; and in the Kennebec the Carratuck, Norridgewoc, Skowhegan, and Ticonic falls. The rivers of the southwestern part of the State have short courses, and, with exception of the Piscataquis, a deep and wide river which lies between Maine and New Hampshire, are of little value as navigable channels. The Presumscot is the outlet of Sebago Pond, and falls into Casco Bay a few miles north of Portland. The Saco has its sources in the White Mountains, and runs almost directly southeast into the bay of the same name. Its principal tributary is the outlet of Ossipee Lake.



LAKE SCENERY

5. Igneous and paleozoic rocks occupy a large space in the geological formation of Maine. Igneous rocks, eruptive or metamorphic, spread over both the western and southern sides, and also appear in the central silurian districts. Much of the northwest is granitic, and also the loftier summits of the highlands; and granite also occurs largely about Augusta and elsewhere toward the south. Lower silurian strata occupy the whole center of the State, except where broken through or transformed by intrusive rocks. This series is here represented chiefly by strata of blue fossiliferous limestone and argillaceous schists. The upper silurian rocks, consisting chiefly of a light gray limestone, occupy the northwest districts, including the valley of the Walloostook, and they also appear in detached portions quite across the southern portion of the State. In the extreme north the characteristic rocks are strata of old red sandstone crowning beds of schistose clay. Miocene and pliocene strata, or the middle and upper series of the tertiary formation, occur at Portland, Augusta, etc., and recent rocks are found in various places at the estuaries of rivers and along the coast; and raised beaches are met with in several localities.

6. Though Maine is not distinguished for its minerals, it nevertheless contains several economically useful; and in the abundance of its granite, limestone, and slates has treasures of incalculable value. The granite of Maine is quarried chiefly on the islands of Penobscot Bay, and at Prospect and Frankfort. Marble is obtained at Deer Isle. Limestone is abundant throughout the silurian districts, and especially in the neighborhood of Rockland, Camden, etc., on the shores of Penobscot Bay. The lime of this region is found in the markets throughout the Union. Slates for roofing are found between the sources of the Penobscot and St. John. Iron has its chief locality on the Aroostook, and in the same region manganese is abundant; and traces of bituminous coal, probably outliers of the carboniferous measures of New Brunswick, are said to have been discovered in the southeastern districts, between the Penobscot and St. Croix rivers. At Lubec there is a brine spring. Otherwise, and in various places, copper, lead, and zinc ores have been discovered; and gold, in the form of abraded spangles, has been collected in the head streams of the Penobscot and Kennebec.



WINTER IN MAINE.

7. Maine has a climate of extremes. The temperature ranges between 100° above and 20° below zero, with isothermal lines varying from 43° to 40° Fahr. Near the coast the climate is modified by the proximity of the Gulf Stream, which in these latitudes sweeps the shores. The frosts of winter are uninterrupted, and the lakes and rivers are ice-bound from December to the beginning of April. Vegetation thus commences late, but is rapid and vigorous; and only the less hardy cereals suffer from the early frosts. The general salubrity of the climate is satisfactorily attested by the robust health enjoyed by the inhabitants, and the green old age to which many have attained.

8. The soils of Maine are as various as its geological formations. The best lands are those in the limestone regions, and especially

those between and in the valleys of the Penobscot and Kennebec rivers; and there are also large bodies of excellent land in the valley of the St. John and other rivers. The mountain districts are comparatively sterile, and have a thin and poor soil; and along the coasts, and for several miles inland, especially in the southeastern districts, rock prevails to a great extent.

9. Dense forests covered the surface in its natural state, and still spread over the greater part of it. Spruce is the prevailing growth in the northern and central regions, and various species of oak in the tide-water region and near the coasts. Hemlock, pine, maple, beech, birch, and ash are also common, and cedar swamps occur in the middle districts. Otherwise there are in localities the butternut, walnut, poplar, elm, sassafras, etc.; and all the ordinary fruit-trees of the temperate zone, except the peach, are successfully cultivated.

10. The moose and caribou, once the monarchs of the forests, are still frequently seen in this State; and deer of various kinds are also numerous, and in the remote and unsettled districts the bear and wolf have still their lairs. Among the other fur-bearing animals which inhabit the wilds may be enumerated the catamount, wild cat, minx, marten, sable, beaver, raccoon, squirrel, etc. Of the bird tribe, the principal in Maine are wild geese and ducks, pigeons, hawks, and eagles; crows, rooks, and swallows. The seas swarm with fish, especially cod and mackerel, and the rivers and lakes are full of salmon, pickerel, salmon trout, etc.

11. In 1850 Maine contained 583,169 inhabitants, or 18.36 to the square mile, or 2.51 per cent. of the whole population of the Union. This was distributed into the counties as follows:

Counties.	Population.	County Towns.	Counties.	Population.	County Towns.	Counties.	Population.	County Towns.
Androscoggin..	25,788	Auburn.	Kennebec.....	58,018	Augusta.	Sagadahoc...	21,445	Bath.
Aroostook	12,529	Houlton.	Lincoln	47,241	Wiscasset.	Somerset	35,581	Norridgewoc.
Cumberland....	68,792	Portland.	Oxford	35,463	Paris.	Waldo.....	47,280	Belfast.
Franklin	20,027	Farmington.	Penobscot	63,089	Bangor.	Washington .	38,811	Machias.
Hancock	34,372	Ellsworth.	Piscataquis.....	14,735	Dover.	York	60,088	Alfred.

—of the total population (which was composed of 103,337 families, inhabiting 95,802 dwellings) 581,833 (99.77 per cent.) were whites—296,745 males, and 285,068 females, and 1,356 colored—726 males and 630 females; and 551,129 (94.54 per cent.) were Americans, of whom 517,117 were born in Maine, 31,456 (5.37 per cent.) were of foreign birth, and 584 of origin not ascertained. There were 67,193 natives of Maine in other States. The population in 1790 was 96,540; in 1800, 151,719; in 1810, 228,705; in 1820, 298,335; in 1830, 399,455; in 1840, 501,793; in 1850, 583,169; and in 1855 (estimated), 641,279.

12. In the year 1850 there were 162,711 free male persons over 15 years of age employed in various industrial pursuits. Of these 38,247 were employed in commerce, trade, manufactures, mechanic arts, and mining; 97,082 in agriculture; 26,833 in labor not agricultural; 114 in army service; 15,649 in sea and river navigation; 2,212 in law, medicine, and divinity; 1,727 in other pursuits requiring education; 419 in government civil service; 232 in domestic service, and 196 in other pursuits.

13. The most prominent industries of Maine are lumbering and ship-building. In the winter season great numbers are employed in felling timber and hauling it over the hard snow to the rivers, and on the breaking up of the ice, in driving it to the saw-mills and depôts of export. This has been a chief occupation since the first settlement of the country. In ship-building Maine ranks first among the States, and builds about a third of the whole tonnage produced in the Union, the shipping built in 1850 having been 91,212 tons, and in 1855, 215,904 tons, in totals amounting to 272,218, and 583,450 tons in the years respectively. Bath, Waldoboro', Portland, Passamaquoddy Bay, Belfast, Wiscasset, etc., are the chief ship-building districts; and Bangor, Calais, and Portland the principal seats of the lumber trade.



PINE FOREST—LUMBERING.

14. Of the 20,330,240 acres of land constituting the State of Maine, only 4,555,393 acres, or less than one fourth the surface, was held by individuals in 1850, and of this only 2,039,596 acres, or about a tenth of the whole, was under cultivation. The number of farms was 46,760, valued at $54,861,748; and the value of agricultural implements thereon was $2,284,557. The principal agricultural crops are oats, Indian corn, and Irish potatoes; and the secondary crops, wheat, barley, rye, and buckwheat, with peas and beans, etc. Indian corn, however, does not thrive well except in the lower parts of the State. The total measure of the cereal crops in 1850 was (oats 2,181,037, Indian corn 1,750,056, wheat 296,259, barley 157,731, rye 102,916, and buckwheat 104,523) 4,586,522 bushels, of potatoes 3,436,040 bushels, and of peas and beans 205,541 bushels. The quantity of hay housed was 755,889 tons.

15. Maine is comparatively well supplied with livestock, for which the climate is peculiarly favorable. In 1850 it contained 41,776 horses, etc., 343,339 neat cattle, 451,577 heep and 54,598 swine, in all valued at $9,705,726. The dairy produced in the year 9,243,811 pounds of butter, and 2,434,454 pounds of cheese; the wool crop amounted to 1,364,034 pounds, and the value of animals slaughtered was $1,646,773. The total value of the farm products in the year 1840 was $14,725,615, and in 1850, $16,282,347.

16. As a manufacturing State (excepting in the branches of lumbering and ship-building, to which reference has already been made) Maine holds only a secondary rank. In 1850, however, it contained 3,977 establishments, and had invested in this industry $14,700,452, giving employment to 21,856 males and 6,222 females, and producing annually goods to the value of $24,664,135. In the cotton manufacture it holds the seventh, and in the woolen the ninth rank. In 1830 the total value of goods manufactured was $7,043,773; in 1840, $13,244,504; and in 1850, $24,664,135. The value of home-made goods in 1850 was $513,599.

17. The fisheries of Maine are very valuable. The shad and salmon of the rivers, the herring and mackerel of the coast, and the cod of the Banks, are taken in great numbers, and dried and pickled fish are largely exported. In 1850 there were employed in the cod fisheries 41,912 tons of shipping, and in the mackerel fisheries 12,046 tons. Massachusetts alone surpasses Maine in this department of industry.

18. The foreign commerce of this State is rapidly increasing. In 1850 the exports amounted to $1,556,912, and in 1855 to $4,851,207; and the values of imports for the same years were $856,411 and $2,927,443. In 1850 the amount of shipping entered was 143,186, and in 1855, 199,173 tons; and of shipping cleared 202,137 and 313,840 tons in those years respectively. The shipping owned in the State amounted in 1850 to 501,421 tons, and in 1855 to 806,604 tons, or about a sixth of the tonnage of the Union.

19. The coasting and internal trade are also extensive. The former enjoys great facilities from the bays and inlets with which the coast abounds, and the islands with which it is inclosed. The means of internal intercourse by river and railroad are also ample, and in several instances the lakes provide eligible navigation. This State has now upward of 460 miles of railroad and about 20½ miles of canal. The latter connects Portland with Sebago Pond, and navigation is farther extended through Brandy and Long ponds by a lock in the Saco River. The principal railroads are the Atlantic and St. Lawrence, which form a part of the Grand Trunk line to Montreal and Quebec; the Portland, Saco, and Portsmouth, which, in connection with the Eastern, and Boston and Maine lines, reaches into Massachusetts; and the lines from Portland to Augusta, Waterville, and Bangor. There are also several short lines, used chiefly in the transportation of lumber, in the vicinity of Calais and Baring, and also above Bangor. The European and North American line will extend eastward from Bangor to and through New Brunswick, and to Halifax in Nova Scotia. Telegraphic wires extend entirely across the State, in the direction of the principal towns, and connect on the east with the lines from Newfoundland and Nova Scotia, and on the west with those from the States lying in that direction. From Portland steamers ply regularly to the principal coast and river ports, and Boston and New York; and lines of steamers in connection with the Grand Trunk Railroad are also established between Portland and Liverpool.

20. According to the official returns for 1850 there were in Maine 32 banks, with capital amounting to $3,248,000; and in 1855, 75 banks with $7,899,793. In the same years the circulation amounted to $2,654,208 and $5,077,248; the deposits to $1,223,671 and $2,011,028, and other liabilities to $86,291 and $223,148; and the assets comprised—loans and discounts $5,830,230 and $13,066,956; real estate, $778,955 and $1,396,430; specie, $475,589 and $753,085; and miscellaneous, $966,390 and $1,860,991.

21. The constitution of Maine went into operation in 1820. The right of voting is vested in every adult male citizen. The legislature consists of a senate of 31 members and a house of representatives of 151 members, all elected annually. The governor is also elected for one year, and is assisted in his executive duties by a council of seven members chosen by the legislature. The secretary of state and the state treasurer are also chosen by the same body. The supreme court consists of a chief and seven associate justices, who are appointed by the governor for seven years. The State is divided into three judicial districts—Western, Middle, and Eastern, and for the hearing of questions of law and equity, terms are held annually at Portland, Augusta, and Bangor. All other cases are tried in the counties in which they are commenced. Judges of probate and of municipal and police courts are elected by the people for four years. The institutions supported by the State are the Insane Hospital at Augusta, the State Prison at Thomaston, and the Reform School at Cape Elizabeth.

22. The total resources of the treasury in 1850 amounted to $604,726, and in 1855 to $636,308; and the expenditures in the same years amounted to $478,802 and $597,178. The chief sources of income are direct taxes, the bank tax, sales of land, etc. On the 1st July, 1856, the State funded debt amounted to $657,500, and its total liabilities, including trust-funds ($306,430), etc., to $1,038,174. The resources of the State other than lands, and consisting of bank shares, etc., amounted at the same time to $575,034. The valuation of taxable property in 1850 was $96,768,868, and in 1855, $131,128,186.

23. In matters of popular education Maine ranks first among the States of the Union. In 1850 the number at school was as one to every 3.1 of the population. This indeed is a higher ratio than presented by any other country of the world. The statistics for the year, as furnished by the general census, were as follows:

Classes.	Number.	Teachers.	Scholars.	Income.
Public schools	4,042	5,540	192,815	$315,436
Academies and private schools.....	131	232	6,648	199,745
Collegiate institutions.....	3	21	282	14,000

—making a total of 4,176 schools, 5,793 teachers, and 199,745 scholars, and an annual income of $529,181. The number of persons over 20 years of age unable to read and write was 6,282, of which 2,134 were natives and 4,148 foreign born, and 3,336 males and 2,946 females. The public schools are supported by the proceeds of the permanent school fund, a tax of one per cent. on bank capital and town assessments.

24. The collegiate establishments in this State are Bowdoin College at Brunswick, Waterville College at Waterville, and the Maine Medical School in connection with Bowdoin College. There is also a theological seminary, under Congregational auspices, at Bangor. Bowdoin College was founded in 1794, and has 10 professors and a library of 27,650 volumes. In 1855 it had 1,151 alumni and 186 students. Waterville College, founded in 1820, has five professors and a library of 15,500 volumes; and in 1855 had 267 alumni and 88 students. The Medical School, also founded in 1820, had in 1855 six professors, 682 graduates, and 67 students. The Bangor Theological Seminary was founded in 1816, and has three professors and a library of 7,000 volumes; and in 1855 had 37 students.

25. In 1850 the total number of churches in Maine was 945, with accommodation for 321,167 persons, and with property valued at $1,725,845. The most prevalent denomination is the Baptist, and after that the Congregational, Methodist, Universalist, and Unitarian. Friends or Quakers are relatively a numerous sect; while both the Episcopalian and Roman Catholic denominations are proportionally small, in neither case being more than one per cent. of the whole number in the Union. The Presbyterian, as a separate denomination, has scarcely an existence in Maine, or in fact in all New England.

26. The principal cites are Augusta, Portland, Bangor, and Bath. Their progress in population is exhibited in the following table:

LONGITUDE WEST 70 FROM GREENWICH

72 71 68 67

47 46 45 44

5 6 7 8 9

LONGITUDE EAST FROM WASHINGTON

MAINE AND NEW HAMPSHIRE

1:811.887. of Nature

25 Geographical or 28.31 Statute Miles to one inch.

SCALE OF STATUTE MILES.

0 5 10 20 30 40 50

EXPLANATION.

State Capitals ... ✲ CONCORD
County Towns .... ⊙ Gilford
Rail Roads .....
Canals .....
Battle Fields ..... ⚔

CANADA EAST

CANADA WEST

NEW BRUNSWICK

ATLANTIC OCEAN

MAINE

NEW HAMPSHIRE

MASSACHUSETTS

Quebec
Three Rivers
Sherbrooke
Montreal
Kingston
Toronto
Hamilton
London
Niagara
Buffalo
Rochester
Oswego
Syracuse
Utica
Albany
Troy
Boston
Lowell
Worcester
Springfield
Hartford
New Haven
Portland
Augusta
Bangor
Belfast
Thomaston
Machias
Eastport
Houlton
Woodstock
Fredericton
St. John
Madawaska
Fort Fairfield
Presque Isle
Mars Hill
Monticello
Amity
Great Falls
Tobique L.
Miramichi L.
Grand Menan I.
Mt. Katahdin
Mt. Desert Rock
Matinicus Is.
Seal Is.
Passamaquoddy B.
Penobscot B.
Penobscot R.
Kennebec R.
Androscoggin R.
Saco R.
Piscataqua R.
Merrimack R.
Connecticut R.
St. Lawrence R.
St. John R.
Allegash R.
Aroostook R.
Moosehead L.
Sebec L.
Chesuncook Lake
Umbagog L.
Winnipiseogee L.
Memphremagog L.
Lake Champlain
Lake Ontario
Lake Erie
Lake Huron
Lake Michigan
Lake Superior
Lake Winnipeg
Lake of the Woods
Rainy Lake
Red River
Hudson's Bay
Gulf of St. Lawrence
Gulf of Mexico
Mississippi R.
Missouri R.
Ohio R.
Illinois R.
Wisconsin R.
Iowa R.
Arkansas R.
Red R.
Texas
Mexico
Oregon
California
Utah
New Mexico
Kansas
Nebraska
Indian Territory
Minnesota
Dakota
Nova Scotia
Prince Edward I.
Newfoundland
Labrador
Hudson's Bay Territory
Vancouver I.
Russian America

Entered according to Act of Congress, in the Year 1856 by J.H. Colton & Co. in the Clerks Office of the District Court of the United States for the Southern District of New York

Cities.	1800.	1810.	1820.	1830.	1840.	1850.	1855.
Augusta	—	1,805	2,475	3,980	5,314	8,225	10,500
Bangor	277	850	1,221	2,867	8,627	14,432	18,300
Bath	—	2,491	3,026	3,773	5,141	8,020	9,200
Portland	3,677	7,169	8,581	12,601	15,218	20,815	25,418

—and other cities and towns are—Belfast, which in 1850 had 5,051 inhabitants; Biddeford, 6,095; Calais, 4,749; Camden, 4,005; Eastport, 4,125; Ellsworth, 4,009; Frankfort, 4,233; Gardiner, 6,486; Hallowell, 4,769: Kittery, 2,076; Lewiston, 3,584; Oldtown, 3,087; Rockland, 5,052; Saco, 5,798; Thomaston, 2,723; Waldoboro', 4,199; Waterville, 3,964; Wiscasset, 2,332, etc. All these towns have since materially increased in population.

27. Augusta, the capital, is built on the Kennebec, at the head of steamboat navigation, and 43 miles from its mouth. Latitude 44° 18′ 43″, and longitude 69° 50′. The principal part of the city is on the west bank of the river, and connects with the opposite section by a bridge 520 feet long. Above this the river is crossed by a bridge nearly 1,000 feet long, which connects the Kennebec and Portland and the Somerset and Kennebec railroads. The city is laid out with great regularity, and is a well-built and handsome place. The principal building on the west side of the river is the State-house, a noble structure of granite, commanding an extensive prospect, and fronted by a spacious and well-planted park. On the east of the river are the State Lunatic Asylum and the United States Arsenal. The city is the seat of a considerable trade, and a dam across the river, about a mile above, affords it a vast water-power, which is extensively used for manufacturing purposes. This damming up of the waters also creates a supplementary navigation as far as Waterville, to and from which a small steamboat plies daily during the open season. Steamboats also ply regularly between Augusta and towns below and on the coast.

28. Portland, the commercial metropolis of the State, is situated on an elevated peninsula at the west extremity of Casco Bay, 60 miles southwest from Augusta. Latitude 43° 39′ 52″, and longitude 70° 13′ 34″. The city is, with little exception, regularly laid out, substantially built, and approached from the sea, has a notable appearance. The main streets occupy the ridge of the peninsula, and many of the streets, which are lighted with gas, are lined with elms and other shade trees. The principal public buildings are the Court House, Custom House, City Hall, etc. Portland is more commercial than manufacturing, but its manufactures are by no means insignificant. The principal are its locomotive and car factories and sugar refineries. It has also a considerable ship-building interest. The harbor is capacious and safe, and is esteemed one of the best in the Union. It is protected from the violence of storms by several islands, is seldom obstructed by ice, has a good entrance, and is well protected by forts Preble and Scammel. The connections of the port and city with the interior are manifold. The Cumberland and Oxford Canal, 20½ miles long, extends to Sebago Pond, and navigation is farther continued through Long Pond, etc., and four railroads diverge immediately from the city, giving it access to all the principal cities of the State and of New England. The Grand Trunk Railroad extends to Montreal and Quebec, and makes Portland the winter port of Canada. The foreign commerce of the port is principally with Europe and the West Indies; and a large coasting trade is also carried on. The mackerel and cod-fisheries also employ a large tonnage. Portland was settled by the English in 1632 and chartered as a city in 1832. It is a remarkably healthy town, and is well supplied with water.

29. Bangor is situated on both sides of the Kenduskeag River, at its confluence with the Penobscot, and 60 miles from the sea. It is noted as the seat of an extensive lumber trade, and in point of population is the second city of the State. Above the city the Penobscot is crossed by a bridge 1,320 feet long. The harbor at and below this is spacious and deep, admitting at tide the largest vessels. The trade of Bangor is extensive, and it has several manufacturing establishments and ship-building yards. It has steamboat connection with Boston, Portland, etc. This city is the seat of a flourishing theological seminary.

30. Bath, in commercial importance, the second city of the State, is built on the right bank of the Kennebec, 12 miles from the sea, and is connected with Portland and Augusta by a branch of the Kennebec and Portland Railroad. The city stretches along the river for upward of two miles, and is not distinguished for regularity of design. It is, however, well-built, and lighted with gas, but has no notable buildings. The great interest of the city is ship-building, in which it ranks next to Boston and New York. The manufactures of Bath are those peculiar to a seaport, and among these may be noted its rope and block factories and smithies. The principal exports are lumber, fish, and vessels, the latter finding a ready sale in both home and foreign ports.



SHIP-BUILDING.

31. Belfast is situated at the head of Belfast Bay, 30 miles from the sea, and has a deep and spacious harbor. It is a commercial and ship-building town, and is largely engaged in the fisheries. In the winter season, when the Penobscot is frozen over, it is the depôt of a large portion of the trade of the valley of that river. On the opposite side of the bay, nine miles distant, is the thriving town of Castine, with a deep and spacious harbor, and engaged in the same industries.

32. Biddeford and Saco are towns on opposite sides of the Saco River. They are both largely engaged in the cotton manufacture, and enjoy extensive water-power created by the falls in their vicinity. There are also various manufactures of woolen goods, machinery, etc., and to a small amount ship-building.

33. The situation, etc., of the other principal places are—Calais, on the right bank of the St. Croix, at the head of steamboat navigation, and noted for its extensive lumber trade; Camden, on the west side of Penobscot Bay; Eastport, on Moose Island, Passamaquoddy Bay, and the most easterly port of the United States; Ellsworth, on Union River, four miles above Frenchman's Bay, and largely engaged in the coasting trade and lumbering; Frankfort, on the Penobscot, 10 miles below Bangor, engaged in ship-building and the lumber trade; Gardiner, on the west bank of the Kennebec, and on the railroad between Portland and Augusta; Hallowell, on the same river, 6 miles above, and noted for its granite; Kittery, opposite Portsmouth, N. H., the site of the United States Navy Yard; Lewiston, a flourishing manufacturing and commercial town on the Androscoggin; Oldtown, on the Penobscot, and mainly engaged in the manufacture of lumber; Rockland, on Penobscot Bay, noted for its lime, its ships, and its late rapid progress; Thomaston, on St. George's River, 12 miles from the ocean, the seat of the State Prison, and noted for its quarries; Waldoboro', at the entrance of Muscongus River, and engaged in ship-building; Waterville, a thriving town on the Kennebec, at the Ticonic Falls, the seat of Waterville College, and noted for its flourishing manufactures; Wiscasset, on Sheepscot River and Bay, once largely engaged in trade.

34. The first settlements in Maine were made in 1604 by the French, and in 1607 by Sir John Gilbert and companions; but these settlements were not of long duration. The territory was granted by James I. to the Plymouth Company, which, in 1624, transferred it to Sir Ferdinand Gorges, who governed it from 1639 to 1647. In 1652 Maine was placed under the jurisdiction of Massachusetts, and in 1677 was purchased by that province, and thenceforth governed under it until 1820. The separation of Maine from Massachusetts, though frequently attempted, was without success until 1819, when the will of the people was ascertained by popular vote to be in favor of separation, which was accordingly accomplished; and on the 15th March, 1820, the State was admitted into the Union.

STATE OF NEW HAMPSHIRE.

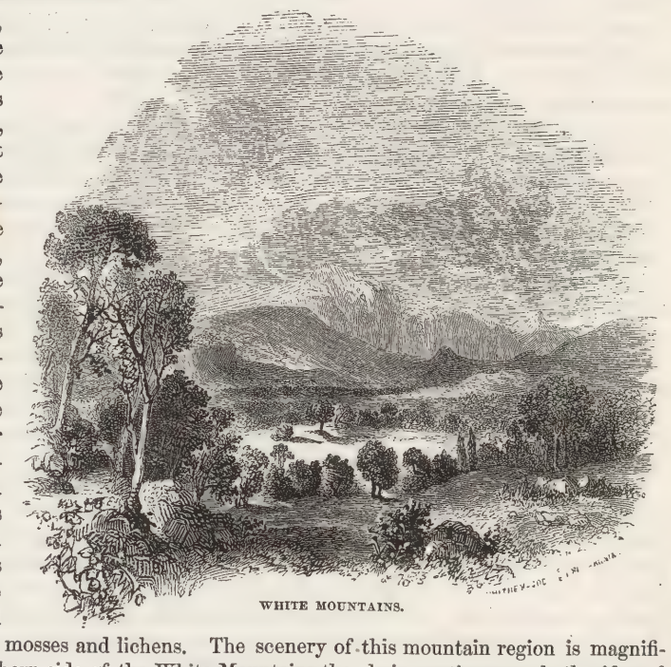


1. New Hampshire is situated between latitudes 42° 44′ and 45° 16′ north, and longitudes 70° 40′ and 72° 38′ west; and is bounded on the north by Canada, on the east by Maine and the Atlantic Ocean, on the south by Massachusetts, and on the west by the Connecticut River, which separates it from Vermont. Its greatest extension north and south is 176 miles, and its width east and west from 20 to 60 in the north to about 85 or 90 in the south. The area is computed at 9,280 square miles.

2. The coast is a low, sandy beach, indented by several creeks and coves, and the shore is bordered by salt marshes. The coast-line measures only 18 miles, but, including the islands and all irregularities, the length is 49 miles, or one mile of coast to every 189.39 square miles of surface. The harbor of Portsmouth, at the mouth of the Piscataqua, is one of the best on the Atlantic coast.

3. The country, to the distance of 20 to 30 miles inland, rises imperceptibly, so as to arrest the tides within 20 miles from the sea, though they rise to about 18 feet. This flat tract has a sandy soil of inferior fertility. Beyond this belt the general surface becomes hilly and broken—the hills increasing in height toward the interior until, at a few miles distance from the banks of the Connecticut River, they constitute a continuous range, running nearly due north and south. Some of the summits attain a considerable elevation, as Grand Monadnoc, which rises to the height of 3,254 feet, Sunape to 3,636 feet, and Mooseheloc to 4,626 feet.

4. On approaching latitude 44° north the chain expands into an extensive mountain group, which projects considerably toward the east, and is known as the White Mountains. The highest summit of this group, Mt. Washington, 6,285 feet, is the loftiest culmination east of the Rocky Mountains, excepting the peaks of the Black Mountain group, in North Carolina, the highest of which, Clingman's Peak, attains 6,941 feet. Several other summits rise above 5,000 feet, and for three quarters of the year have their peaks covered with snow. Round their bases are forests of heavy timber, which are succeeded by belts of stunted fir, above which are bushes, and then only a coating of mosses and lichens. The scenery of this mountain region is magnificent. From the northern side of the White Mountains the chain continues on both sides of the Androscoggin, but does not attain a great elevation; and after forming for some distance the boundary between Canada and Maine, traverses the former eastwardly to Cape Gaspé.



WHITE MOUNTAINS.

5. The range above described divides the streams flowing to the Connecticut from those flowing to the Atlantic. The slope toward the former is short and precipitous, and in this direction the only streams of consequence are the Ammonoosuc, White, Sugar, and Ashuelot. The Connecticut itself rises near the Canada border in several small branches, and forms the greater part of the west boundary of the State. Its current is obstructed by falls, rapids, and shoals; but its navigation has been so much improved by dams, locks, and short canals, that boats of considerable size may ascend it to Haverhill, 200 miles from the sea in a straight line, and small boats to Barnet Falls, 15 miles higher up. The principal streams on the eastern side of the watershed are the Androscoggin and Saco, which pass into Maine; the

Piscataqua and the Merrimac. The Piscataqua is the only considerable river which has its whole course in this State, and for about 40 miles it forms the boundary toward Maine. It is formed by the junction of Salmon Falls and Cochecho rivers. As a navigable channel it is of small importance, as its course is very rapid, and the tide ascends it only a short distance from the sea; but at its mouth it forms the fine harbor of Portsmouth. The Merrimac, which rises in the White Mountains, and traverses the central district by a southerly course,



FRANCONIA NOTCH, WHITE MOUNTAINS.

has also many falls, but its navigation has been so improved as to permit small craft to ascend it to Concord. Its principal tributaries are the Nashua, Contoocook, and Baker's rivers from the west, and the Winnipiseogee and Squam rivers from the east. These are all excellent mill-streams, and their banks the sites of many flourishing manufacturing towns.

6. Lakes are very numerous in New Hampshire, and some of them of considerable extent. Lake Winnipiseogee, 23 miles long and from 2 to 10 wide, is the largest and most picturesque. Upward of 360 islands are sprinkled over its bosom, and its shores are indented by numerous bays, formed by gentle swells of land projecting into the lake and rising gracefully from its waters. It abounds with fish, and its waters are remarkably pure. Umbagog Lake, on the eastern boundary, is 18 miles long and from 3 to 5 miles wide. The other larger lakes are Squam, north of Winnipiseogee, which outlets into the Merrimac; Ossipee, a tributary to the Saco and Sunapee, which empties into Sugar River.

7. Off the coast are the Isles of Shoals, seven in number, of which four belong to Maine. They lie about eight miles out to sea, between Portsmouth and Newburyport, and are hardly more than a cluster of rocks rising above the water. They are, however, inhabited by a hardy race of fishermen, and have for the past two centuries been noted for their superior quality of dried cod, known in the markets as Isles of Shoals dun-fish. Their population once numbered upward of 600 souls, but it is less than 200 at the present day.

8. The rocks of New Hampshire are almost entirely of the paleozoic or non-fossiliferous types. Igneous and metamorphic rocks, including granite, gneiss, sienite, and porphyry, occupy the chief part of the State. Crystalline limestone has been found in one or two places; and the new red sandstone of Massachusetts is prolonged for some distance into the western section of this State. Along the Merrimac and Connecticut rivers there are considerable alluvial tracts. The mineral products of New Hampshire are iron, copper, zinc, and lead, which have their sites near the White Mountains. Silver and tin are also found; and there is abundance of clays, ochres, etc. Its granite is largely worked on the Merrimac and Connecticut rivers, and is highly valued as a building material.

9. The climate is somewhat colder than that of Maine, and the range of temperature greater. In summer the thermometer sometimes marks 100° Fahr., and in winter the freezing-point of mercury. These extremes, however, seldom occur. In the neighborhood of the White Mountains, the peaks of which are almost always capped with snow, the air is excessively cold and the winter long. In the lower parts of the State the winter disappears in mid-April and is succeeded by a season of rapid vegetation, and the summer closes with September, but the intense frost does not occur till the middle of November, from which time to early spring the rivers are frozen to their sources and the ground is covered with snow.

10. The soils are generally stubborn, but repay careful culture by moderate harvests; and with the exception of the Connecticut valley, the lands of which are fertile and highly productive, New Hampshire is better adapted to grazing than agriculture. The principal forest growths are oak, white pine, fir, hemlock, beech, walnut, etc., on the lower slopes of the mountains, and elm, birch, poplar, ash, cherry, locust, etc., on the lowlands. The sugar-maple is also abundant. Wolves, bears, foxes, raccoons, and other indigenous animals, are still found in the State, but the moose and beaver have become rare. The bays and rivers abound with various kinds of fish, and wild fowl are plentiful.

11. The population of New Hampshire in 1850 numbered 317,976 souls or 34.26 to the square mile, or 1.37 per cent. of that of the United States:

Counties.	Popula.	County Seats.	Counties.	Popula.	County Seats.	Counties.	Popula.	County Seats.
Belknap	17,721	Gilford.	Grafton	42,343	Haverhill.	Rockingham	49,194	Portsmouth. / Exeter.
Carroll	20,157	Ossipee.	Hillsboro'	57,478	Amherst. / Manchester.	Strafford.	29 874	Dover.
Cheshire	30,144	Keene.	Merrimac	40,337	Concord.	Sullivan	19,375	Newport.
Coos	11,853	Lancaster.						

—of the total 304,227 (95.67 per cent.) were Americans, of which number 261,591 were born in the State, 13,571 (4.26 per cent.) in foreign countries, and 178 in parts not ascertained; and 317,456 (99.83 per cent.) were whites—155,960 males, and 161,496 females, and 520 colored persons, males and females equal in number. This population composed 62,287 families, occupying 57,339 dwellings. There were 109,878 natives of New Hampshire in other States of the Union. In 1790 the State contained 141,899 inhabitants; in 1800, 183,762; in 1810, 214,360; in 1820, 244,161; in 1830, 269,328; in 1840, 284,574; in 1850 (as above) 317,976, and in 1855 (estimated) 324,701.

12. In 1850 there were 94,564 free male persons over 15 years of age occupied in industrial pursuits. Of these 27,905 were engaged in commerce, trade, manufactures, mechanic arts, and mining; 47,440 in agriculture; 14,953 in labor not agricultural; 38 in the army; 778 in sea and river navigation; 1,642 in law, medicine, and divinity; 1,425 in other pursuits requiring education; 305 in government civil service; 47 in domestic service.

13. Agriculture and manufactures are the chief branches of industry pursued in New Hampshire. The principal seats of the latter are in the southeastern counties, on the Merrimac and Salmon Falls rivers and their tributaries, all of which are possessed of immense water-power. There is also considerable manufacturing business done on the Connecticut and its affluents, the Ashuelot, etc. The only commercial port is Portsmouth, and generally the foreign commerce of the State is transacted through Boston, with which New Hampshire is connected by several railroads. Both the shore and bank fisheries are extensive.

14. The whole area of New Hampshire is 5,939,200 acres. Of this 3,392,414 acres, or about three fourths of the whole, was held for farming purposes in 1850, and 2,251,488 acres were improved. The number of farms in the same year was 29,229, averaging 116 acres to each holding, and valued at $55,245,997. The value of farming implements and machinery was $2,314,125. The principal agricultural crops are Indian corn, oats, and potatoes, with wheat, rye, hops, etc. All the cereal crops, excepting Indian corn, largely decreased from 1840 to 1850, and the total of the decrease was 364,522 bushels. In 1850 the production of Indian corn was 1,573,670 bushels, of oats 973,381, of wheat 185,658, of rye 183,117, of barley 70,256, and of buckwheat 65,256 bushels, making a total of 3,051,338 bushels. The potato crop decreased in the ten years from 6,206,606 to 4,304,919 bushels; while the hay and hop crops increased from—hay 406,107 to 598,854 tons, and—hops 243,425 to 257,174 pounds. The crop of beans and peas in 1850 was 70,856 bushels; and the value of orchard and garden products $305,373.



HAYING.

15. The livestock in 1850 consisted of 34,252 horses, etc., 267,910 neat cattle, 384,756 sheep, and 63,487 swine, in all valued at $8,871,901. These figures show a large decrease from those of 1840, which, in relation to the number of animals, were 43,892, 275,562, 617,390, and 121,671 respectively. The dairy products of 1850 consisted of—butter 6,977,056 pounds, and cheese 3,196,563 pounds; the wool crop amounted to 1,108,476 pounds, and the value of animals slaughtered during the year was $1,522,873. The total value of farm products in 1840 was $10,762,019, and in 1850, $13,594,139.

16. In manufactures New Hampshire has relatively a distinguished position. In 1850 it contained 3,211 establishments employing 14,103 males and 12,989 females, and a capital of $18,242,114. Massachusetts alone exceeds it in the value of its cotton manufactures, and only four other States in that of its woolen manufactures—in these two branches more than two thirds of its manufacturing capital is invested. The total value of goods manufactured in 1830 was $5,678,499, in 1840, $9,985,010, and in 1850, $23,164,503. The value of home-made goods in 1850 was $393,455.

17. New Hampshire has valuable fisheries. In 1855 there were employed in the cod fisheries 1,358 tons, and in the herring fisheries 296 tons; and large numbers of boats are employed along the coasts and at the Isle of Shoals in the shore fisheries.

18. New Hampshire has little direct foreign commerce. In 1850 the exports amounted to but $8,927, and in 1855 to only $1,523, and the imports for the same years were only $49,079 and $17,786 respectively. The shipping entered amounted to 11,044 and 5,979 tons, and the shipping cleared to 8,213 and 5,466 tons. The shipping owned in the State was 23,096 and 30,329 tons; and the amount of shipping built was 6,914 and 8,928 tons in the years respectively.

19. The internal trade is necessarily large, and seeks Boston as its sea-port. To this point nearly all the railroads of the State converge. The position of this State in relation to Boston and Montreal is also advantageous, and secures to it the bulk of the land commerce so largely carried on between these two commercial centers. A considerable coasting trade is also established, but the deficiency of port accommodation is prejudicial to any expansion of business in this direction. In 1855 there was a total of 650 miles of railroads in the State, two of which are sections of the Boston and Portland lines, and the other principal railroads, sections of the Boston and Canada lines; besides which there are several local lines. The Grand Trunk Railroad crosses the northern part of the State. Telegraphic lines are also established.

20. In December, 1850, New Hampshire had 22 banks, and in 1855, forty-six. The liabilities of these institutions at the two periods was as follows—capital $2,375,900 and $4,449,300, circulation $1,897,111 and $2,578,336, and deposits $566,634 and $958,475; and assets—loans and discounts $3,821,120 and $8,037,427, real estate $43,670 and $56,519, and specie $129,399 and $334,411; balance total, including sundries, $4,563,086 and $8,328,357.

21. The constitution is dated 1784, and has been several times amended. The right to vote is secured to every adult male inhabitant. The house of representatives and the senate are collectively called the general court or legislature. Every town of 150 ratable polls may choose one representative, and for every 300 above that number an additional representative. Senators, of which there are twelve, are elected in districts set off on the basis of taxation. Representatives must have been resident in the State for two years, and senators for seven years, and both must be freeholders. The executive council is composed of

five members, who must have the same qualifications as senators. The governor must own an estate of $300, of which at least one half must be freehold. With the assistance of the council he nominates and appoints all judicial officers, and each has a negative on the other. All administrative officers are chosen by the general court in joint ballot. The judiciary consists of a supreme court and court of common pleas. The judges hold office during good behavior. Justices of the peace are appointed for five years. No one professing other than the Protestant religion can hold office in this State.

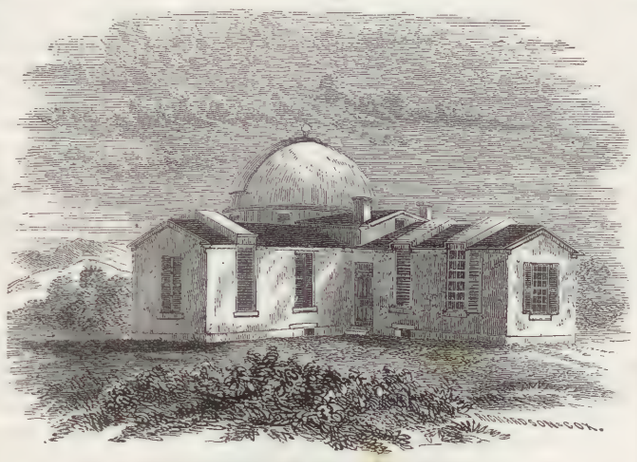
22. The total resources of the State treasury for the year ending 30th June, 1850, amounted to $172,056, and for 1855 $218,272; and the expenditures for the years respectively amounted to $167,012 and $199,052. The revenue is derived chiefly from general and railroad taxes. New Hampshire has no State debt. The valuation of taxable property in 1850 was $92,177,953, and in 1855 $103,804,826. The chief institutions supported wholly or in part by the State are the State Prison and the New Hampshire Asylum for the Insane at Concord. There is also a house of reformation for juvenile and female offenders against the laws near Manchester.

23. In 1850 there were in New Hampshire 81,237 persons, or one in every 3.9 of the whole population attending school. The educational statistics of that year were as follows:

Classes of Schools.	Number.	Teachers.	Scholars.	Income.
Public schools	2,381	3,013	75,643	$166,944
Academies and private schools	107	183	5,321	81,237
Collegiate institutions	1	18	273	11,000

—making a total of 2,489 schools, 3,214 teachers, 81,237 scholars, and income $248,181. The number of persons over 20 years of age unable to read and write was 3,009, of which number 945 were natives and 2,064 foreigners, and 2,957 whites and 52 free colored persons. The public schools in each county are supervised by a commissioner, and these in their collective numbers constitute the board of education.

24. Dartmouth College, founded in 1769, is located at Hanover. It is the only collegiate institution in the State, and has 16 professors and a library of 40,000 volumes; and in 1855 had 4,365 alumni and 251 students. The New Hampshire Medical School, founded in 1797, is a department of the college, and in 1855 had 5 professors, 50 students, and 930 graduates. Besides these are three theological schools, viz.: the Methodist Biblical Institute at Concord, founded in 1847, and which in 1855 had 3 professors and 40 students; the Theological Seminary (Congregational) at Gilmanton, founded in 1835, and which in 1855 had 3 professors and 23 students; and the Theological Seminary (Baptist) at New Hampton, founded in 1825, and which in 1855 had 2 professors and 36 students. The libraries of these institutions contained respectively 2,000, 4,300, and 2,000 volumes.



DARTMOUTH COLLEGE OBSERVATORY.

25. The total number of churches in New Hampshire in 1850 was 626, with accommodation for 237,417 persons, and with property valued at $1,405,786. The most numerous denominations are Congregationalists, Baptists, and Methodists, and next in point of numbers Universalists, Union, Unitarians, Christians, Presbyterians, Friends, Episcopalians, Catholics, etc. The three first-named denominations represent three fourths of the inhabitants.

26. The chief towns of New Hampshire are Concord, Portsmouth, Manchester, and Dover. The population at decennial periods and in 1855 has been as follows:

Towns	1810.	1820.	1830.	1840.	1850.	1855.
Concord, Merrimac Co.	2,393	2,838	3,727	4,897	8,576	12,000
Manchester, Hillsboro' Co.	—	—	—	3,235	13,932	21,000
Portsmouth, Rockingham Co.	6,934	7,327	8,082	7,887	9,738	14,000
Nashua (wi. Nashville) Hillsboro' Co.	—	—	—	6,054	8,942	12,000
Dover, Strafford Co.	—	2,871	5,449	6,458	8,196	10,000

—and the other principal towns are—Gilford, in Belknap County, which in 1850 had 2,425 inhabitants; Ossipe, in Carroll County, with 2,123; Keene with 3,392 and Winchester with 3,296, in Cheshire County; Lancaster with 1,559, in Coos County; Hanover with 2,350, Haverhill with 2,408, Lebanon with 3,136, Littleton with 2,008, and Plymouth with 1,290, in Grafton County; Amherst with 1,613, Milford with 2,159, Peterboro' with 2,222, and Weare with 2,435, in Hillsboro' County; Exeter with 3,329, Deerfield with 2,022, and Salem with 1,555, in Rockingham County; Boscawen with 2,063, Hopkinton with 2,169, and Warner with 2,038, in Merrimac County; Rochester with 3,006, and Somersworth with 4,943, in Strafford County; and Claremont with 3,606, and Newport with 2,020, in Sullivan County. Most of these are flourishing manufacturing towns, and have almost all of them access to the markets by railroad.



MANUFACTURING VILLAGE.

27. Concord, capital of the State, is built on the west bank of the Merrimac, in latitude 43° 12′ 29″ and longitude 71° 29′—76 miles north-northwest from Boston. It extends about two miles along the river, and is laid out in handsome streets, several of which are ornamented with shade-trees. The State House stands on a beautiful common, planted with elms and maples; it is a granite building, 126 feet long and 49 feet wide, two stories high above the basement. The State Prison, also a massive granite building, and the Asylum for the Insane, are also located here. The manufactures and general business of the town are large and increasing—the former being highly favored by the immense water-power furnished by the falls opposite the town, and the latter by its extensive connections by railroad, Concord being situated on the line of railroads between Boston and the North and West, and there is also a line connecting it with Portsmouth.

28. Portsmouth, at the mouth of the Piscataqua, is the only sea-port of the State, and has an excellent harbor. Portsmouth has also considerable manufactures and a thriving coasting trade; but has immensely declined as a commercial port, being now scarcely ever visited by foreign shipping. The principal buildings are the State Arsenal and Atheneum. On an island on the opposite side of the river is the United States Navy Yard, with a floating balance-dock, immense ship-houses, etc. The shore-line of railroad between Boston and Portland crosses the river at Portsmouth, 56 miles north from Boston. Manchester, 18 miles south from Concord, is a new town, and thirty years ago the site of the present city contained less than 50 inhabitants. It is now one of the principal centers of New England industry, and the seat of immense manufacturing establishments, producing cotton, woolen and mixed goods, machinery, railroad cars, paper, and other staples. The Merrimac has here a descent of 54 feet in one mile, called the Amoskeag Falls, which afford a vast water-power. The villages of Piscataquog and Amoskeag are included within the city limits. Manchester is connected with Boston by two lines of railroad, and also with Concord and the North and West. Seventeen miles south, and also on the Merrimac, stands—

29. Nashua, at the confluence of Nashua River, which latter has here a fall of 65 feet within two miles, and affords immense hydraulic power. The canal supplying the chief factories is three miles long, and affords a fall of 36 feet. Nashville, on the opposite side of the river, contains about one third the total population. The principal manufactures of both districts of the town are cotton goods, which employ about 2,000 hands. Nashua is 41 miles from Boston by railroad.

30. Dover, the oldest town in the State, is built on both sides of the Cochecho River at its lower falls, where its sudden descent of 32 feet creates abundant water-power. Its manufactures are principally cotton goods; shoes, woolen goods, carpets, etc., are also largely manufactured. The town is favorably situated for trade, being at the head of sloop navigation, and is connected with Alton Bay, on Lake Winnipiseogee, by the Cochecho Railroad, and with Boston and Portland by the Boston and Maine Railroad.

31. Great Falls, on Salmon Falls River, is a thriving village employed in manufactures of various kinds, and is connected by branches with the Boston and Maine Railroad. The Great Falls and Conway Railroad, now open to Union Village, 20 miles, also terminates at Great Falls.

32. Claremont, on the Connecticut River, has considerable manufactures, chiefly iron-castings and cotton goods; and Keene, on the Ashuelot River, is extensively engaged in various branches of industry. Keene is situated on the Cheshire Railroad, 42 miles northwest of Fitchburg, and is also the northern terminus of the Ashuelot Railroad, which connects at South Vernon with the Connecticut River lines. Amherst, 36 miles south from Concord, is the seat of Phillips' Academy, the most ancient academic institution of the State. To the west and southwest are Wilton and Mason villages, both engaged in manufactures.

33. In 1622 James I. of England granted to Mason and Gorges the country between the Merrimac and Kennebec rivers, and in 1623 the first settlements were begun at Dover and Portsmouth. In 1629 Mason procured a further grant of the land between the Merrimac and Piscataqua, and extending 60 miles into the interior—and this he called New Hampshire. In 1641 the settlements in New Hampshire placed themselves under the government of Massachusetts, and thus remained until 1679, when it became a royal province. In 1686 New Hampshire, with the other New England colonies, was placed under the government of Sir Edmund Andros; from 1689 to 1692 it was united with Massachusetts; from 1699 to 1702 with New York and Massachusetts; and from 1702 to 1749 with Massachusetts alone, and at the latter date the two colonies were finally separated and their boundaries settled. New Hampshire declared its independence on the 15th June, 1776, and in December of the same year framed a temporary government, which continued during the Revolution, and until the adoption of the State government in 1784. The Constitution of the United States was ratified by New Hampshire on the 21st June, 1788.

STATE OF VERMONT.

1. VERMONT is situated between latitudes 42° 34′ and 45° north, and longitudes 71° 34′ and 73° 26′ west; and is bounded on the north by Canada, on the east by New Hampshire, on the south by Massachusetts, and on the west by New York and Lake Champlain. Its length, north and south, is 157 miles, and its breadth about 40 miles in the south and 90 miles in the north. The area is 10,212 square miles.

2. Vermont constitutes a part of that irregular mountain region which extends over the greater part of the country east of the Hudson River and Lake Champlain. The Green Mountains, a continuation of the Hoosac Mountains from Massachusetts, traverse the State from south to north, forming a continuous ridge to near latitude 44°, at which point they divide into an eastern and a western branch. The highest point south of their bifurcation is Killington Peak, 3,924 feet above sea-level. Northward the mountain region widens, and occupies more than half the width of the country. Of the two branches the eastern is the lowest, but forms the watershed between the basin of the Connecticut and that of Lake Champlain. In the western branch are the highest summits of the system—Camel's Hump 4,083 feet, and Mansfield Mountain 4,343 feet. Between the mountains are valleys of considerable extent, well-sheltered and fertile. The summits are rocky and only covered with winter grass and mosses; their sides support forests of evergreen trees, especially pine, spruce,

and hemlock, which near the base of the mountains attain large dimensions, and are of great value in an economical point of view.

3. In the extreme north the valleys are narrow, and contain a comparatively small portion of cultivable land; but as the hills are not very steep or elevated, they are covered with tall forest trees, and in most places afford good pasturage. The tract of country which lies between the eastern ridge and the Connecticut is very hilly and broken, and is the least fertile part of the State. The country below the mountains on the southeast is also of indifferent quality, with a stony and gravelly soil, but it is well drained, and a large part of it is well wooded. Proceeding north the country improves, and contains a larger portion of loam



MOUNT ASCUTNEY AND WINDSOR.

and clay; and along the banks of the Connecticut some very fertile tracts occur. In these parts an isolated summit, Mt. Ascutney (latitude 43° 30′), rises to 3,320 feet above the sea.

4. The most level part of Vermont is the slope to Lake Champlain, though the surface is broken by numerous water-courses. Near the shore are some low, swampy tracts, from which the country rises gradually to the base of the mountain region, and becomes hilly in approaching it, but the hills have such gentle slopes as to admit of cultivation everywhere. This plain is about 100 miles long, and its southern parts less than 10 miles wide, but widens northward to 30 miles. The soil varies greatly, but a large portion of it is productive.

5. More than two thirds of the drainage of Vermont runs into Lake Champlain. The largest rivers falling into that lake are the Otter, Winooski or Onion, Lamoille, and Missisqui. Otter Creek drains the southern part of the plain, and is navigable for lake vessels to its first falls, about 8 miles from its mouth, and for boats to Pittsford, 17 miles higher. Onion River originates in the mountain region of the center, runs past Montpelier, and falls into the lake about five miles north of Burlington. Much of its course is remarkable for the romantic character of its scenery, and it is of great value for mechanical purposes. The Lamoille, which rises in the same region, also affords great hydraulic power. Both are much interrupted by rapids, and are unnavigable. Missisqui River rises in Canada; about 10 miles from its mouth it becomes navigable for river boats, and falls into Missisqui Bay, the northeastern arm of Lake Champlain, which is about 15 miles long and three miles wide.

6. A few small rivers draining the northern district of the mountain region fall into Lake Memphremagog, of which about one fifth part lies within Vermont. This lake has a curved form, about 30 miles long, and in no part exceeding two miles in width. It is surrounded by mountains covered with forest trees, and discharges its waters through the Magog into the St. Francis, a tributary of the St. Lawrence.

7. All the rivers falling into the Connecticut from the Green Mountains are small, and none of them navigable. The principal are the Passumpsic, White, and West rivers. The main river, which divides Vermont from New Hampshire, presents in the upper part of its course a continual succession of rapids and cataracts. The last of these, which entirely prevent navigation, are the Barnet Falls, which occur near latitude 44° 13′ north. Farther down there are also several falls and rapids; but from Haverhill (44°) southward the river is usually navigable for boats, having been improved by locks and short canals, which overcome the natural obstructions.

8. The geology of Vermont belongs almost entirely to the primitive era. The rocks are for the most part eruptive, consisting chiefly of granites, but there are also many metamorphic, including crystalline and fossiliferous limestones, etc. The only non-igneous rocks are the lower silurian strata which skirt the eastern bank of Lake Champlain. The minerals are, as might be expected, numerous. At several points of the Green Mountains quartzose veins traverse itacolumites (a quartzose conglomerate which in South America and India forms the matrix of some of the most precious gems), and contain native gold. On Otter Creek argentiferous copper ore has been found; and lead, zinc, and manganese are also met with. Iron ore occurs in great abundance along the western base of the mountains. Otherwise there is abundance of kaolin, variegated marble, slate, soap-stone, oil-stone, granite, and other useful materials, all of which are more or less worked, and some of them extensively.

9. Vermont is distinguished for the severity of its winter, which continues from November to April. During this season the mercury in the thermometer has frequently been frozen, and loaded wagons cross over the ice-bound rivers. The spring is short, but mild and pleasant, and is succeeded in June by a hot summer. The most pleasant season is from the beginning of September to the middle of October, the heat being then moderate, and the air dry, elastic, and invigorating.

10. The soil and general character of the natural products have been already noticed; but it may here be stated that the greater part of the State is more adapted for grazing than tillage, and it is said that scarcely any part of the United States is better suited for the rearing of cattle and sheep. Few States, indeed, produce a greater amount of wool, either absolute or proportional, and its dairies are only surpassed by those of the three large States of New York, Pennsylvania, and Ohio. Of the cereals oats are raised in the greatest abundance, and next maize, but the latter sometimes suffers from early frosts. Wheat is grown chiefly on the western side of the mountains. Buckwheat, rye, and barley are also grown, but to an inconsiderable extent. Potatoes are a very large crop; and garden vegetables are carefully and profitably cultivated, and all the hardier fruits ripen well everywhere. There are still many wild animals in the mountains and forests, but their numbers have greatly diminished, and many kinds once common are now extinct. Fish are plentiful in the lakes.



SHEEP WASHING.

11. In 1850 Vermont contained 314,120 inhabitants, or 30.76 to the square mile, or 1.35 per cent. of the population of the Union. This was distributed as follows:

Counties.	Popula.	County Seats.	Counties.	Popula.	County Seats.	Counties.	Popula.	County Seats.
Addison	25,549	Middlebury.	Essex	4,650	Guildhall.	Orleans	15,707	Irasburg.
Bennington	18,589	Bennington. Manchester.	Franklin	28,586	St. Albans.	Rutland	33,059	Rutland.
Caledonia	23,595	St. Johnsbury.	Grand Isle	4,145	N Hero.	Washington.	24,654	*Montpelier.*
Chittenden	29,036	Burlington.	Lamoille	10,872	Hyde Park.	Windham	29,062	Fayetteville.
			Orange	27,296	Chelsea.	Windsor	38,320	Woodstock.

—and consisted of 58,573 families, inhabiting 56,421 dwellings. Of the total population 313,402 (99.77 per cent.) were white—159,658 males and 153,744 females, and 718 free colored—375 males and 243 females; and 280,966 (89.44 per cent.) were Americans, of which number 232,086 were born in Vermont, and 32,831 (10.45 per cent.) were foreigners, the remainder (323) being of origin unascertained. There were 145,655 natives of Vermont in other States. In 1790 the population was 85,416; in 1800, 154,465; in 1810, 217,713; in 1820, 235,764; in 1830, 280,652; in 1840, 291,948; and in 1850 (as above), 314,120. In 1855 the total was estimated at 325,206.

12. Of the free male persons over 15 years of age, 92,226 were engaged in industrial pursuits. Of these 17,063 were employed in commerce, trade, manufactures, mechanic arts, and mining; 48,327 in agriculture; 22,997 in labor not agricultural; 159 in navigation; 1,827 in law, medicine, and divinity; 1,563 in other pursuits requiring education; 129 in government civil service; 34 in domestic service, and 127 in other occupations.

13. Vermont is essentially an agricultural State, and is exceedingly well adapted for cattle and sheep. It has also considerable manufactures; and besides a large transit trade by railroad, it enjoys an active domestic commerce, but having only one outlet by water, the foreign trade is necessarily restricted. In the southwest valuable marble quarries are wrought. Burlington, on Lake Champlain, is its only port of entry.

14. The State contains 6,535,680 acres; and of this, in 1850, there were included in 29,763 farms then enumerated 4,125,822 acres, or somewhat less than two thirds the whole area. The amount under cultivation or improved was 2,601,409 acres, or two fifths of the surface. The cash value of the farms was $216,401,543, and the value of agricultural implements thereon $7,021,772. The principal crops are oats, Indian corn, and potatoes. Wheat is also a fair crop, and only the three great States of New York, Pennsylvania, and Ohio produce a larger hay crop (866,153 tons), and only New York produces a larger quantity of maple-sugar (6,349,357 lbs). The total cereal crop in 1849–50 was (oats 2,307,734, Indian corn 2,032,396, wheat 535,955, buckwheat 209,819, rye 176,233, and barley 42,150) 5,304,287 bushels; in 1839–40 it amounted to 4,352,252 bushels. The potato crop amounted to 4,951,014 bushels in 1849–50, against 8,869,751 bushels in 1839–40. Among the minor crops in 1849–50 are enumerated peas and beans 104,649 bushels, hops 288,023 pounds, and flax 20,852 pounds, and the value of market-garden crops was $18,853, and of orchard products $315,255.

15. The livestock of the State in 1850 consisted of—61,275 horses, etc., 348,848 neat cattle, 1,014,122 sheep, and 66,296 swine, and was represented in money at $12,643,228. These figures show a large decrease from the enumeration in 1840, in which year Vermont contained 62,402 horses, etc., 384,341 cattle, 1,681,819 sheep, and 203,800 swine. The products of animals in 1849–50 were butter 12,137,980, cheese 9,720,834, and wool 3,400,717 (in 1839–40 wool 3,699,235) pounds. The value of animals slaughtered in the year was $1,861,336. The total value of agricultural products was in 1840, $16,977,664, and in 1850, $20,813,564.

16. Woolen goods form the staple manufacture of Vermont; and the manufactures of cotton goods and iron are considerable. The principal manufactures are located in or near the Connecticut River, and on the streams emptying into Lake Champlain, where waterpower is most abundant. In 1850 there were in the State 1,849 establishments, with a vested capital of $5,001,377, giving employment to 6,894 males and 1,551 females. The cost of material was $4,172,552, and of labor $2,202,348. In the manufacture of woolens Vermont holds the seventh place among the States. In 1820 the total value of goods manufactured was $890,353; in 1830, $1,507,779; in 1840, $6,249,434; and in 1850, $8,570,920. The value of home-made goods produced in 1840 was $674,548, and in 1850 $267,710.

17. The direct foreign commerce of Vermont is almost wholly with Canada. In 1850 the exports were valued at $430,906, and in 1855 at $2,895,468; and the imports at $463,092 and $591,593 in the years respectively. Of the exports in 1850, the value of domestic products exported was $404,749, and in 1850 only $322,544. The great increase in the exportation of foreign products is due to the increased transit trade from the sea-board toward

VERMONT, MASSACHUSETTS, RHODE ISLAND & CONNECTICUT.

1.881.871 of Nature

LONGITUDE WEST 72 FROM GREENWICH.

LONGITUDE EAST 5 FROM WASHINGTON.

VICINITY OF BOSTON.

EXPLANATION

State Capitals ..... ✲ BOSTON
Important Places ..... ⊙ Lowell
County Towns ..... ⊙ Dedham
Rail Roads .....

SCALE OF STATUTE MILES, 69,16, to 1°
0 5 10 20 30 40

25 Geographical or 28.81, Statute Miles, to one inch.

Entered according to Act of Congress in the Year 1858 by J.H. Colton & Co. in the Clerks Office of the District Court of the United States for the Southern District of New York.

Canada, consequent on the reciprocity policy lately inaugurated between the two nations. In 1850 the shipping cleared amounted to 82,546 tons, and in 1855 to 19,542 tons, and the shipping entered to 99,435 tons and 18,312 tons—a vast decrease being shown, but which is due to the greater convenience of transportation by railroad than by water. The shipping owned in the State in 1850 was 4,530 tons, and in 1855, 6,915 (4,075 steam) tons.

18. The facilities enjoyed by Vermont for commerce are ample. On its west frontier lies Lake Champlain, admitting of steam navigation from Whitehall, in New York, to Rouse's Point, on the Canada line, with numerous intermediate ports on its east shore, of which Burlington is the chief. Navigation is continued to the St. Lawrence by the Chambly River and Canal. The interior is traversed by several lines of railroad entering the State from the Atlantic ports and crossing it into Canada at three points. The principal of these are the Grand Trunk line from Portland, in Maine, the Connecticut River lines, which run almost directly north from New Haven, etc., several lines from Boston, and two lines from New York. Altogether Vermont had 527 miles of railroad in 1855, or one mile to every 19.3 square miles of surface. These, however much they may have tended to the development of the State within itself, have hitherto been of vastly greater value to its neighboring States, and as investments of capital they have signally failed to be productive. The electric telegraph accompanies most of the lines. In the open season, steamboats ply regularly from Burlington to the principal lake ports, and steam navigation has also been inaugurated on Lake Memphremagog.

19. According to the returns for 1850, Vermont had 27 banks, and in 1855, 42 banks, with capitals amounting to $2,197,249 and $3,603,460 in the respective years. In the same years the circulation amounted to $2,856,027 and $3,704,341, the deposits to $546,703 and $801,039, and other liabilities to $32,984 and $12,435, and the assets comprised—loans and discounts $4,423,719 and $6,710,928, real estate $94,497 and $123,237, specie $127,825 and $201,548, and miscellaneous $1,131,804 and $1,439,066.

20. The government of Vermont is based on the constitution of the 4th of July, 1793, and its subsequent amendments. Every male citizen of a quiet and peaceful behavior, and who has resided in the State one year, has the right to vote. The legislature consists of a house of representatives composed of 230 members and a senate of 30 members, elected annually by a plurality of votes on the first Tuesday of September, and meets at Montpelier on the second Thursday of October. None are eligible but persons "noted for wisdom and virtue." The governor and lieutenant-governor are also chosen annually, but by a majority of votes.

21. The judiciary consists of a supreme court, a court of chancery, and county courts. The supreme court consists of six judges elected annually by the legislature. The county court is held by one judge of the supreme court and two county judges elected annually by the people. The judges of the supreme court are also chancellors. Two terms of the county court and one term of the supreme court are held annually in each county, and the court of chancery has two stated sessions. Questions of law may be carried from the county court to the supreme court, and appeal lies from the decrees of the chancellor to the same.

22. The institutions supported by the State are the Vermont Asylum for the Insane at Brattleboro', established in 1836, and the State Prison at Windsor. Both are supplied with libraries. State aid is also extended to the poor deaf and dumb and the blind.

23. The total resources of the treasury for the year ending 31st August, 1850, amounted to $125,375, and for 1855 to $ ———; and the expenditures for the same years to $122,253 and $ ———. Direct tax supplies the chief source of revenue. Vermont has no State debt. In 1850 the valuation of taxable property was $71,671,651, and in 1855, $86,186,961.

24. The following exhibits the condition of the educational establishments in 1850

Establishments.	Number.	Teachers.	Scholars.	Income.
Primary and public schools	2,731	4,173	93,457	$176,111
Academies and private schools	118	257	6,864	48,935
Collegiate institutions	5	30	464	21,558

—making a total of 2,854 schools, 4,460 teachers, and 100,785 scholars, and an annual income of $246,604. The number of persons over 20 years of age unable to read and write was 6,240, of which number 616 were natives and 5,624 of foreign birth, and 3,633 were males and 2,607 females.

25. The collegiate institutions of Vermont are (1855) as follows:

Institutions.	Location.	Founded.	Professors.	Alumni.	Students.	Libraries.	Commencement.
University of Vermont	Burlington	1791	9	619	99	13,000	1st Wed. in August.
Middlebury College	Middlebury	1800	6	960	82	8,500	2d Wed. in August.
Norwich University	Norwich	1834	4	—	80	1,650	2d Thurs. in August.

—and the medical schools are as follows:

Castleton Medical College	Castleton	1818	7	555	104	—	4th Thurs. in August.
Med. Dep. U. of Vermont	Burlington	1821	7	131	41	—	1st Thurs. in March.
Vermont Medical College	Woodstock	1835	8	350	91	—	1st Thurs. in March.

—Vermont has neither law nor divinity schools.

26. In 1850 the total number of churches in Vermont was 599, with accommodation for 234,534 persons, and with property valued at $1,216,125. The most numerous denominations are the Congregational, Methodist, and Baptist, and after these the Universalist and Episcopal. The Presbyterian, Roman Catholic, and Unitarian denominations are scarcely known as distinct organizations.

27. The principal towns in Vermont are Montpelier, the capital, with 2,310 inhabitants; Burlington, the chief port, with 6,110, Brattleboro' with 3,816, Bennington with 3,923, Rutland with 3,715, St. Albans with 3,567, Middlebury with 3,517, Woodstock with 3,041, Castleton with 3,016, St. Johnsbury with 2,758, Windsor with 1,928, etc.

28. Montpelier is situated at the confluence of the two branches of Onion River, and near the center of the State, in latitude 44° 17′, and longitude 72° 36′; and has been the State capital since 1855. A short branch connects it with the Vermont Central Railroad, and has contributed greatly to the prosperity of the town by placing it in immediate connection with Burlington and Canada north and the sea-coast south and east. The State House is a handsome structure of granite, in the form of a cross, 150 feet in length and 100 feet in width, including a portico of six columns, each 6 feet in diameter at the base and 36 feet high. The building is surmounted by a dome, the apex of which is 100 feet from the ground. It contains also the court-house of Washington County.

29. Burlington, on Burlington Bay of Lake Champlain, and 41 miles northwest by railroad from Montpelier, is the largest town of the State, and an important point in relation to commerce and the routes of travel by railroad and steamboat, the first of which connects it with the principal sea-ports and the St. Lawrence, and the latter with numerous important towns on the lake, as Plattsburg on the opposite side, Whitehall at its south end, and Rouse's Point on the north. The location is beautiful, the grade rising from the lake to a considerable elevation, and the town is regularly and well-built, with a central square, on which is the court-house of Chittenden County, the principal hotels, and several fine stores. Many of the dwellings have handsome spaces ornamented with shrubbery and shade-trees. At the mouth of the bay the United States government have erected a breakwater to protect the shipping, and a light-house on Jupiter Island. The University of Vermont is situated at the east of the town, on an elevation overlooking and about a mile distant from the lake. Burlington was settled in 1783.

30. Brattleboro', county seat of Windham, on the Connecticut River, 118 miles by rail-



BRATTLEBORO'.

road south of Montpelier, is the oldest town in Vermont, Fort Dummer having been built here in 1724. The town contains two villages, one on and a second about two miles west of the river. The east village is the most important, and is one of the most active business places in the State, and contains, besides the county buildings, numerous manufactories and the State Lunatic Asylum. It is connected with the north and south by the river line of railroads.

31. Bennington, on the Hoosac, 33 miles west Brattleboro', was settled in 1761, and is a flourishing manufacturing town. It is connected with Troy and Rutland, etc., by the Western Vermont Railroad. Rutland is a very flourishing town on Otter Creek, about 50 miles south from Montpelier. Several important railroads center here. In the town are several marble and slate works, iron works, etc., and iron ore, lime, and marble are largely worked in the vicinity. Castleton, 11 miles by railroad west from Rutland, is the seat of Castleton Medical College, and is a place of considerable trade. Middlebury, on the Rutland and Burlington Railroad, 33 miles north-by-west Rutland, is the seat of a college, and is also a busy manufacturing town. Marble is extensively quarried in the vicinity.

32. St. Albans, on the Vermont and Canada Railroad, 34 miles north Burlington, is a flourishing town on Lake Champlain, and the port of a fertile district. It has also some



BELLOWS FALLS.

manufactures. Vergennes is an old town on Otter Creek, 7 miles from its entrance into Lake Champlain, and 21 miles by railroad south of Burlington. It was settled in 1766, and is the seat of a United States arsenal. It enjoys good advantages for ship-building, the

creek being here 500 feet wide and deep enough for the largest vessels, and it was here that McDonough fitted out his flotilla that so distinguished itself in the battle of Lake Champlain, fought on the 11th September, 1814.

33. Windsor is a thriving town on the Connecticut, where it is crossed by the Sullivan and Vermont Central railroads, 77 miles south-by-east Montpelier. It is the seat of the State Prison, and the center of a fine wool-growing and agricultural district. Millbrook furnishes immense water-power, having a fall of 60 feet in less than half a mile. The vicinity abounds in beautiful and picturesque scenery, the view embracing Ascutney Mountain and the river valley. Bellows Falls, 26 miles south, is an important railroad village, in which four several lines form connections. The place takes its name from a series of falls in the Connecticut, which in half a mile have a descent of 44 feet, but which are passed by a canal and nine locks. The neighboring scenery is beautiful. Woodstock, 12 miles northwest, is the seat of the Vermont Medical College. The Quechee, on which the village is built, has immense water-power.

34. St. Johnsbury, 75 miles north Windsor, and 60 miles above White River junction, one of the great railroad crossings of the Connecticut, is a thriving manufacturing town on the Passumpsic River, and on the Connecticut and Passumpsic Railroad. It is specially noted for its vast establishment for the manufacture of weighing-scales. The railroad northward of St. Johnsbury is now open to Barton, and will soon be completed to the Canada line, where it will form connections with the roads leading to Montreal and Quebec. Barton River, on which the town of Barton is situated, empties into Lake Memphremagog.

35. Vermont was first settled in 1724, when Fort Dummer was built on the Connecticut River, in the southeast part of the State. In 1731 the French built a fort at Crown Point, and began a settlement on the eastern shore of Lake Champlain. The territory of Vermont was originally claimed both by New Hampshire and New York, and a long controversy continued between these colonies until the commencement of the war of the Revolution. In July, 1777, Vermont independently adopted a constitution, under which a government was organized in March, 1778; and not being accounted by the British one of the revolted colonies, escaped much of the troubles of the revolutionary period. In 1789 affairs were amicably adjusted with the contesting claimants to the State, and on the 4th March, 1791, Vermont was admitted as a State of the Union.

STATE OF MASSACHUSETTS.

1. Massachusetts, the most densely populated State of the Union, is situated between latitudes 41° 12′ and 42° 52′ north, and longitudes 69° 54′ and 73° 34′ west; and is bounded on the north by Vermont and New Hampshire, on the east and southeast by the Atlantic Ocean, on the south by Rhode Island and Connecticut, and on the west by New York. The length of the State east and west is about 154 miles, and the general width north and south about 50 miles; but at the eastern extremity it expands to nearly 100 miles, while a long, narrow tongue of land, known as the peninsula of Cape Cod, extends in a curve northeasterly 60 miles beyond the main. The land area is stated at 7,800 square miles.



2. Narragansett Bay, which lies chiefly within Rhode Island, enters by its most northeastern inlet into Massachusetts, and receives the Taunton, the most considerable of all the streams which fall into it. Farther east is Buzzard's Bay, a deep indentation stretching in a northeastern direction into the mainland. It is inclosed seaward by the Elizabeth Islands, and its innermost corner is divided from Cape Cod Bay by an isthmus only five miles in width. This bay is very much indented by small but serviceable inlets on both shores, but is generally shallow, yet vessels of considerable size ascend to New Bedford 17 miles from its entrance on the west. The shores are low and sandy. On the east of Buzzard's Bay begins Cape Cod peninsula, which first stretches from the mainland, a little north of east, 35 miles, varying in width from 4 to 20 miles; it then changes its direction to north and northwest for about 30 miles, with a mean width of three miles, and terminates in Cape Cod. The difference in the tides south and north of the peninsula is remarkable: in Buzzard's Bay the rise is from 3½ to 4 feet only, while in Cape Cod Bay it is 16 feet. This peninsula incloses the southern portion of Massachusetts Bay, called Cape Cod or Barnstable Bay, which extends northward to Cape Ann in the form of a parallelogram, 55 miles long from south-southeast to north-northwest and 25 miles in average breadth, and between the two points a distance of 44 miles it is open to the Atlantic. It contains the important harbors of Plymouth, Boston, and Salem. North of Cape Ann the shores are somewhat high and rocky.

3. South of Cape Cod peninsula are the islands of Nantucket and Martha's Vineyard. Nantucket is about 15 miles long and four miles wide. It constitutes with some smaller islands adjoining it a separate county. Martha's Vineyard is about 16 miles long and eight miles in general breadth, and together with its adjacent islets constitutes Duke's County. Neither of these islands rises to more than a very moderate height, and both are level, with a sterile, sandy soil. The wide bay which they inclose on the south is called Nantucket Bay, and the strait between Martha's Vineyard and the Elizabeth Islands is called Vineyard Sound. The inhabitants subsist chiefly by fishing. The total length of coast-line is 286 miles; but including islands and all irregularities, 886 miles, or one mile of coast to every 8¾ square miles of surface.

4. The surface of Cape Cod consists of two inclined planes, which attain some elevation where they meet. Between Hyannis and Barnstable the highest level is about 80 feet above the sea, but on the isthmus which unites the peninsula to the main it is only 40 feet. The soil of this tract is light and sandy, and much of it is entirely destitute of vegetation. The country along the western side of Buzzard's Bay and the shores of Massachusetts Bay is similar in soil; but at the back of this level tract is a hilly region, which in the northeast districts extends nearly to the sea, and westward to the valley of the Connecticut. Its surface is agreeably diversified, and the soil of the valleys is deep and strong. In this part some hills rise to a considerable elevation, the highest, called Wachuset, attaining 2,018 feet. Hills of smaller elevation extend toward the Connecticut, but they approach the banks of the river



VIEW FROM MT. HOLYOKE.

only near Northampton and Hadley. North and south of these places the Connecticut runs through a valley from two to three miles wide, which is covered with an alluvium of great fertility. West of it the country immediately rises into high hills, which gradually attain the elevation of mountains; and the western part of the State is traversed north and south by two continuous ridges of the Green Mountains, called the Hoosac and Taghkannuc ridges, the most elevated parts of which are above 3,000 feet high, and Saddle Mountain in the northwest and Bald Mountain or Mount Washington in the southwest attain respectively 3,505 and 2,624 feet. The hills on the east side of the Connecticut may be considered as detached members or outliers of the White Mountain system.

5. Massachusetts is everywhere well watered, but the streams are valuable rather for their abundant water-power than for navigation. The western or mountainous region is traversed by the Housatonic, which rises in the northwest part of the State, and traverses it by a southerly course of nearly 50 miles, when it enters Connecticut. It is very rapid, and not navigable in Massachusetts. The Connecticut enters this State from the north, and traverses it by a course of 70 miles, including its numerous bends. By means of short canals it has been made navigable through the State; and its tributaries furnish valuable sites for manufacturing towns. The principal are Miller's and Chicopee rivers from the east, and Deerfield and Westfield rivers from the west. Blackstone River passes from the center of the State southeast into the northwestern arm of Narragansett Bay; and Taunton River southwest into its northeastern arm. Both these rivers have vast hydraulic power, and are the seats of an immense and varied industry. There are no rivers of consequence flowing to the sea from the southeastern section; and the only considerable streams flowing from the whole eastern section of the State are the Charles and Merrimac rivers, the first into Boston harbor and the latter directly into the ocean north of Cape Ann. Charles River is navigable for eight miles for large boats, and the tide flows up it to Dedham. The Merrimac rises in the western declivities of the White Mountains, and runs nearly due south for 50 miles, when it receives the outlet of Winnipiseogee Lake, and then runs 52 miles south-southeast till it is met by the Nashua River from the southwest. Below the junction the Merrimac turns east and then northeast for about 40 miles, and falls into the Atlantic. In its natural state the Merrimac opposed great impediments to navigation, but by means of improvements an uninterrupted navigation has been effected as far up the river as Concord, in New Hampshire. The tide ascends it to Haverhill, 15 miles from its mouth.

6. The primary rocks are conspicuous in the geology of Massachusetts, and these in some places are covered by the older secondary formations. The valley of the Connecticut rests on a bed of red sandstone. The primary rocks are largely used for building purposes, and the granite of Quincy has become a staple among the economic productions of the State. The mountains in the west are composed chiefly of granite, gneiss, quartz, mica, clay-slate, limestone, and hornblende. Soapstone and argillaceous slate are found in various parts, and potter's and porcelain clays are abundant. The State is not, however, so far as ascertained, rich in minerals; but iron is mined and extensively wrought, and plumbago, lead, and copper ores are found in localities. The white clay of Martha's Vineyard furnishes alum, and anthracite is obtained in the graywacke district, to the west of Taunton River. Peat is used as a common fuel in the eastern counties. Mineral springs are numerous.

7. The climate of Massachusetts, though identical in many respects, is not so extreme as that of Maine and New Hampshire. The winters, however, are very severe, and in the year the temperature varies from 20° below to 100° above zero. The changes are frequently sudden, and sometimes a difference of 40° Fahr. is observed within 24 hours. On the eastern and southern shores the seasons are moderated by the proximity of the ocean. The season of growth commences late in all parts. but vegetation is rapid, and by the middle of April the peach and apricot are in bloom.

8. The soil is naturally stubborn, and not the most favorable to agriculture, but the skill and industry of the inhabitants have made the least fruitful soils to yield remuneratively. The best soils are those of the valleys, and the poorest those on the sandy flats of the south-east. Salt marshes, somewhat extensive, are found near the coasts. The forests abound with valuable timber; but these are now of much less extent than formerly, and cover only, in fact, a comparative small portion of the territory of the State.



MOUNT TOM.

9. The population of Massachusetts, in 1850, amounted to 994,514 souls or 127.47 to the square mile, or 4.29 per cent. of the population of the Union. This was distributed as follows:

Counties.	Population.	County Seats.
Barnstable ..	35,276	Barnstable.
Berkshire....	49,591	Lenox.
Bristol	76,192.	New Bedford. Taunton.
Essex .....131,300.		Salem. Newburyport.
Duke's.....	4,540	Edgartown.
Franklin.....	30,870	Greenfield.
Hampden....	51,283	Springfield.
Hampshire ..	35,732	Northampton.
Nantucket...	8,452	Nantucket.
Norfolk	78,892	Dedham.
Middlesex...	161,383	Cambridge. Concord. Lowell.
Plymouth ...	55,697	Plymouth.
Suffolk.....	144,517	BOSTON.
Worcester ..	130,789	Worcester.

—and comprised 192,675 families inhabiting 152,835 dwellings; of the total 985,450 (99.09 per cent.) were whites—484,093 males and 501,357 females, and 9,064 free colored—4,424 males and 4,640 females; and 830,066 (83.35 per cent.) were Americans, of whom 695,236 were born in this State, and 160,909 (16.18 per cent.) were foreigners, the remainder (3,539) being of origin unascertained. The natives of Massachusetts resident in other States numbered 199,582. In 1790 this State had 378,717 inhabitants; in 1800, 423,245; in 1810, 472,040; in 1820, 523,287; in 1830, 610,408; in 1840, 737,699, and in 1850 (as above), 994,514. In 1855 the State census gave a total of 1,133,123.*

10. Two hundred and ninety-five thousand three hundred (295,300) free male persons over 15 years of age were occupied in the various industries of the State in 1850—of these, 146,002 were engaged in commerce, trade, manufactures, mechanic arts, and mining; 55,699 in agriculture; 57,942 in labor not agricultural; 73 in the army; 19,598 in sea and river navigation; 4,702 in law, medicine, and divinity; 5,371 in other pursuits requiring education; 1,566 in government civil service; 1,375 in domestic service, and 2,972 in unclassified pursuits.

11. Massachusetts stands at the head of manufacturing States in America, and as a commercial State ranks next to New York and Louisiana. Boston is to New England what New York city is to the north interior States, and what New Orleans is to the south interior States—a great commercial mart. In the value of its manufactured products it is exceeded only by New York, a State with threefold its population, and is about equaled by Pennsylvania, with more than twice its population. In its staples, however, it differs from both its compeers, being to a greater extent than any other State engaged in the manufacture of textile fabrics of cotton and wool; while Pennsylvania is distinguished chiefly for its iron manufacture, and New York for its greatly varied and perhaps more justly balanced series of products. Massachusetts also ranks high in regard to its leather manufactures, and produces annually a greater number of shoes than all the other States in the aggregate. Its rank as an agricultural State, if estimated by the intelligence of its farmers and the thorough cultivation of its soils, would be conspicuous, but its comparatively harsh climate, and the ruggedness of its surface, are great drawbacks to rural industry, and as a consequence the production is unequal to the consumption. The State, however, boasts of the finest farms in the Union, and the most approved breeds of stock. Another and important industry of Massachusetts is its fishery, home and foreign, and in this pursuit it is the leading State. In the whale fishery, which is chiefly carried on from New Bedford, it employs three fourths of the whole United States tonnage engaged therein; in the cod fisheries, chiefly carried on from Gloucester and Barnstable, more than two fifths, and in the mackerel fishery, chiefly from Gloucester, more than two thirds. The products of its fisheries are valued at three fifths of those of the whole fishery of the United States. In ship-building it is exceeded only by Maine and New York, and New York city alone exceeds Boston as a building port.

12. Massachusetts has an area of 4,992,000 acres, and of this, 3,356,012 acres or more than two thirds were held by individuals in 1850, and 2,133,436 acres or somewhat less than one half were improved lands. The number of farms was 34,069 or on the average of 99 acres to each farm; and these were valued at $109,076,347, and the agricultural implements and machinery in use thereon at $3,209,584. The principal agricultural crops are Indian corn, oats, and rye; wheat, barley, and buckwheat are grown only to a small extent, and the same may be said of beans and peas. The total cereal crop, in 1850, amounted to (Indian corn 2,345,490, oats 1,165,146, rye 481,021, barley 112,385, buckwheat 105,895, and wheat 31,211) 4,241,142 bushels, against a total, in 1840, of 4,075,128 bushels; the potato crop amounted to 3,585,384 bushels, that of peas and beans to 43,709 bushels, and the hay crop to 569,395 tons. In the value of market-garden produce ($600,020) it is only exceeded by the large States of



MARSHFIELD—THE HOMESTEAD AND FARM OF THE LATE DANIEL WEBSTER.

New York and Pennsylvania, and in that of its orchard produce by only five other States. Maple sugar was produced to the amount of 795,525 pounds.

13. In livestock* the State has decreased vastly from 1840 to 1850, in which years it was comparatively as follows:

1840.....	horses, etc., 61,484	neat cattle, 282,574	sheep, 378,226	swine, 143,221
1850	" 42,250	" 259,994	" 188,651	" 81,119

—but its dairy products are comparatively large (butter 8,071,370, and cheese 7,088,142 pounds), and its wool crop, which in 1840 was 941,906, in 1850 amounted to 585,136 pounds, being an increase of 25 per cent. to the fleece. The total value of livestock, in 1850, was $9,647,700, and the value of the animals slaughtered in the year previous was $2,500,924.

14. The total value of agricultural produce, etc., in the year 1849–50, is stated at $14,277,595.

15. In 1850, Massachusetts contained 8,259 manufacturing establishments, employing a capital of $83,357,642, and giving employment to 96,261 males and 69,677 females. The cost of the raw material, fuel, etc., consumed was $85,856,771, and the cost of labor $39,784,116. The value of the products of the year amounted to $151,137,145. In 1810 the total value of manufactured products was $17,874,191; in 1830, $59,211,015; in 1840, $67,061,899; in 1845 (State census), $124,749,457; in 1850, as above, and in 1855 (State census), $295,820,681. The value of home-made goods in 1849–50 was $205,333.

16. For the purpose of illustrating the progress of textile manufactures in this State, in the 10 years ending 1st June, 1855, the following statistics are drawn from the State censuses of 1845 and 1855:

Manufactures.	Capital invested. 1845.	Capital invested. 1855.	Hands employed. 1845.	Hands employed. 1855.	Value of products. 1845.	Value of products. 1855.
Cotton goods of all kinds	$17,739,000....	$32,086,000.....	20,710....	34,887.....	$12,193,449....	$26,160,538
Calico.....	1,401,500....	1,980,000.....	2,053....	1,157.....	4,779,817....	5,213,000
Goods bleached and colored .	200,500....	659,000.....	325....	644.....	2,244,700....	5,111,200
Woolen goods of all kinds ...	5,604,002....	7,305,500.....	7,372....	10,000.....	8,877,478....	12,131,254
Carpeting	488,000....	2,276,672.....	1,034....	1,642.....	834,322....	1,362,819
Worsted	514,000....	1,386,000.....	846....	1,222.....	654,566....	2,123,740
Hosiery and yarn	42,500....	69,980.....	238....	256.....	94,892....	207,160
Linen.....	79,000....	550,000.....	192....	910.....	145,000....	1,440,000
Silk.....	38,000....	75,000.....	156....	189.....	150,477....	338,000
Total	$26,106,502....	$46,388,152.....	32,926....	50,997	$29,994,701....	$54,087,711

—and in the following list will be found the value of other principal manufactured goods in 1855—rolled and slit iron and nails, $5,531,316; anchors, chain cables, etc., $915,980; pig-iron, $641,540; hollow-ware and castings, $3,256,538; machinery, $4,089,590; steam-engines and boilers, $3,255,000; fire-engines, $50,000; cutlery, axes, scythes, etc., $1,320,811; hinges, screws, etc., $202,000; door-handles, latches, locks, etc., $105,800; tacks and brads, $621,212; shovels, spades, forks, and hoes, $894,515; plows, etc., $763,980; iron railing, fences, and safes, $656,400; copper, $1,796,500; brass articles, $1,504,050; Britannia ware, $302,000; buttons, $267,120; lead, $340,000; tin-ware, $1,451,240; white lead, etc., $910,190; mechanics' tools, $1,142,614; cannon, $54,151; fire-arms, $391,475—making a total of *metallic manufactures* valued at $30,468,022; and the following among the general manufactures—glass, $2,648,125; starch, $195,800; paper, $4,264,522; musical instruments, $2,295,680; chronometers, watches, gold and silver ware and jewelry, $2,105,200; brushes, $484,500; saddles, harnesses, and trunks, $1,220,049; upholstery, $1,876,800; railroad cars, coaches, etc., $2,352,355; sugar refined, $2,056,430; sperm candles and oil, $6,813,291; soap and tallow candles, $7,720,534; chairs and cabinet-ware, $3,969,982; flour $2,040,040; leather, tanned and curried, $10,934,416; patent and enameled leather, $1,276,942; boots and shoes, $37,529,483; corn and other brooms, $323,135; cards, $440,240; salt, $350,971; powder, $228,125; combs, $557,422; linseed oil, $890,000; glue and gum $532,650; cotton gins,

* State census, 1855—horses, etc., 80,321; oxen and steers 77,511, and 184,010 milch cows and heifers; sheep, 145,215, and swine, 51,113. Cheese, 5,762,776 lbs.; butter, 8,116,009 lbs.; milk, 13,204,665 quarts.

* Distributed by counties as follows—Barnstable, 35,877; Berkshire, 52,791; Bristol, 87,425; Duke's, 4,401; Essex, 151,167; Franklin, 31,655; Hampden, 54,852; Hampshire, 35,485; Middlesex, 194,082; Nantucket, 8,064; Norfolk, 94,448; Plymouth, 61,513; Suffolk, 171,818; Worcester, 149,545.

Of the whole, 886,579 were born in the United States; 21,707 in British America; 20,987 in England; 181,304 in Ireland; 6,734 in Scotland; 248 in Wales; 9,653 in Germany and Holland; 1,143 in France; 855 in Portugal; 358 in Italy; 734 in Norway and Sweden; and the remainder in other foreign countries or of unknown nativity.

The number of dwelling-houses (*i. e.*, inhabited tenements) was 175,311, and of families 228,845.

The number of deaf and dumb was 401 (371 native, 30 foreign and unknown); of blind 471 (408 and 63); of insane 1,919 (1,411 and 508); of idiotic 838 (791 and 47).

Paupers, 5,687; convicts, 2,901; legal voters, 211,681.

Occupations were as follows—agriculturists, 57,031 (17.1 p. c.); factory operatives, 8,801 (2.64 p. c.); laborers, 60,248 (18.06 p. c.) mariners and boatmen, 16,346 (4.91 p. c.); manufacturers, 5,294 (1.59 p. c.); mechanics 122,251 (36.63 p. c.); merchants, 29,039 (8.71 p. c.); professional men, 8,312 (2.49 p. c.); miscellaneous, 26,220, or 7.87 per centum.

$99,000; bricks, $2,627,163; building stone, $1,585,213; whips, $505,500; wooden ware, $745,711; fringe and tassels, $433,000; stone and earthenware, $125,450; chemicals, $1,124,765; mathematical instruments, $204,850; marble, $561,650; lime, $94,907; blocks and pumps, $314,510, etc.

17. The fisheries of Massachusetts, which have here before been alluded to as more valuable than those of any other of the United States, may be divided into two branches—those which are carried on along the American coast, and those of distant seas. In the pursuit of the whale, the vessels of this State are found in the Atlantic and Pacific, and in both polar seas. Their chief locality, however, is the North Pacific. In this business there were employed, in 1850, 122,676 tons, and in 1855, 152,719 tons of shipping. In the same years there were employed in the cod fishery 41,751 and 51,952 tons, and in the mackerel fishery 42,895 and 13,709 tons. In 1855, according to the census of that year, the value of whale oil and bone produced was $7,766,996, and of cod and mackerel taken and cured $2,845,782. The whale fishery employs 11,364 men, and a capital of $14,546.548, and the cod and mackerel fisheries 10,551 men, and a capital of $3,696,436.

18. The commerce and navigation with foreign countries, and shipping owned and built in this State for the 10 years ending 30th June, 1855, are shown in the following table:

Years.	Commerce. Imports.	Commerce. Exports.	Navigation. Tonnage ent.	Navigation. Tonnage clear.	Tonnage owned in State. Registered.	Tonnage owned in State. Total.*	Tonnage built in the State.
1846	$24,190,963	$10,313,118	—	—	—	—	—
1847	34,477,008	11,248,462	—	—	—	—	—
1848	28,647,707	13,419,699	—	—	—	—	—
1849	24,745,917	10,264,862	576,708	524,254	445,284	636,199	23,888
1850	30,374,684	10,681,763	611,449	546,952	473,328	685,442	35,836
1851	32,715,327	12,352,682	661,574	626,800	504,377	694,404	—
1852	33,504,789	16,546,499	645,944	657,513	555,437	767,740	48,001
1853	41,367,956	19,955,276	724,174	716,828	631,548	856,155	83,015
1854	48,563,788	21,488,504	799,950	738,006	686,722	921,248	92,570
1855	45,113,774	28,190,925	836,929	813,484	737,413	979,210	79,669

—of the imports, in 1855, $29,784,688 were carried in American, and $15,329,086 in foreign vessels; and of the exports, $24,412,923 were of domestic production, of which $10,328,159 were carried in American, and $14,084,764 in foreign vessels, and $3,778,002 were of foreign production, of which $2,931,056 were carried in American, and $846,946 in foreign vessels. Of the shipping entered, 454,245 tons were American and 382,684 tons foreign, and of that cleared, 432,634 tons were American and 380,850 foreign. Included with the shipping owned in the State in 1855 are vessels navigated by steam, amounting to 17,627 tons. Of the amount (79,669 tons) of shipping built in the year, 56,496 tons were built at Boston, 8,535 at Newburyport, and 6,337 at New Bedford.

19. The ports of Massachusetts are Boston, New Bedford, Barnstable, Newburyport, Gloucester, Salem, Nantucket, Fall River, Plymouth, Marblehead, Edgartown, Beverly, and Ipswich, which are here arranged in the order of their importance, based on the amount of tonnage owned in the districts respectively. Of the total tonnage, Boston owned 546,269, New Bedford 169,986, and Barnstable 80,615 tons.

20. In regard to internal improvements, railroads, turnpikes, telegraphic lines, etc., Massachusetts stands at the head of the most progressive States. Its canals—the Blackstone and Hampshire, have been either filled up or have fallen into disuse; and those on the Merrimac and Connecticut are rather river improvements than proper canals. The railroad, indeed, is now the chief means of travel and transport; it reaches every portion of the State either as lines directed to Boston or otherwise as sections of transverse lines crossing the State north and south, and linking the ports of Long Island Sound and the Atlantic with Canada and the interior. In the latter class may be mentioned the Housatonic, the New Haven and Northampton, the New Haven, Hartford and Springfield, the New London, Willimantic and Palmer, the Norwich and Worcester, and the Providence and Worcester lines, which with their connections form great through lines. On the other hand, two great lines run east and west—the Boston and Worcester and the Western on the south, and—the Fitchburg, the Vermont and Massachusetts, and the Troy and Greenfield on the north—both connecting Boston with the Hudson River at Albany and Troy. The Troy section of the north line is still unfinished. The other lines coming into Boston are the Eastern and the Boston and Maine lines from Maine; several lines from New Hampshire and Vermont, passing through the great manufacturing towns on the Connecticut and Merrimac rivers, from the north and west; and the lines from New London, Providence, Fall River, New Bedford, Fairhaven, Hyannis, Plymouth, etc. These have in most cases considerable branches, giving access to the more important towns near their routes. In all there were in the State, in 1855, 1,622 miles of railroad† owned by 57 companies, and which had cost to that date $69,094,390. In Boston there are several passenger railroads driven by horses; and for miles around the country is completely reticulated by railroads. The mileage thus reported gives one mile of road to every 4.2 square miles of territory and to every 699 inhabitants. In Belgium, which has more railroad in comparison to its size than any other European state, there were in 1855 about 1,119 miles, or only one mile to every 10.2 square miles of surface, and to every 4,096 inhabitants. To support these lines requires an immense trade, and by these may be measured, in a great part, the internal and transit commerce of this State. Its fine turnpikes and other roads are tributary to these, and spread their arms to the remotest hamlet, so that not even the least is wanting in direct and quick routes to the commercial capital.

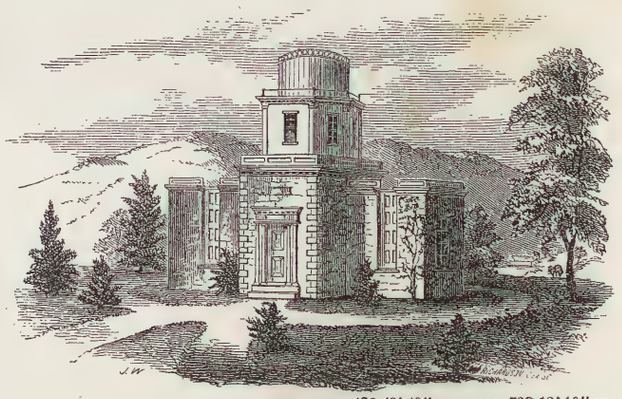
21. Massachusetts has also a vast coasting trade, and by this means reaches the ports of the Atlantic, north and south, and those of the Gulf of Mexico—regular lines of trading vessels communicating with all the chief sea-board towns; and steam-packets, sailing to and from Boston, maintain regular intercourse with Portland, Eastport, St. John's, N. B., etc., to the north, and New York, Philadelphia, and Baltimore to the south. A daily line of steamers also sails between Fall River and New York; and the steamer lines between New York and Stonington, New London and New Haven, form in connection with the railroads lines of rapid communication between the great metropolis and the city of Boston. Boston has also a bi-weekly steam-communication with England.

22. The number of banks in Massachusetts, in 1850 and 1855, was respectively 126 and 169, with aggregate capital amounting to $33,925,929 and $58,632,350. In the same years the circulation amounted to $17,095,826 and $23,116,024; the deposits to $11,176,825 and $21,478,717, and other liabilities to $442,004 and $6,442,377. The assets at the same times consisted of—loans and discounts, $63,330,024 and $99,506,711; real estate, $998,235 and $1,281,601; specie, $2,994,178 and $4,409,402, and miscellaneous assets, $9,383,554 and $11,558,033. In 1855 there were 80 savings' institutions, in which were deposited $27,296,216, belonging to 148,263 depositors. This sum was secured by loans on mortgage $9,423,135, to counties or towns $2,487,917, and on personal security $6,909,846, and investments in bank stock $6,366,067, and in public stock $697,247. The whole expense of management for the year had been $77,756, and the dividends averaged 4.97 per cent. In the above 80 institutions are included 13 five-cent savings' banks. The number of insurance companies in the State was 119, of which 33 were stock and 16 mutual fire and marine companies, 64 mutual fire companies, and 6 life companies. There are also numerous foreign fire, marine, and life insurance companies in the State.

23. The government of Massachusetts is based on the constitution of 1780, as amended in 1821 and with subsequent modifications. The right to vote is secured to every male citizen of the age of 21 years, who has paid taxes within the two years, and been resident in the State one year, and in the place of voting six months next preceding. All elective officers are chosen annually. The legislative authority is vested in the general court, which is composed of a senate of 40 members elected from districts, and a house of representatives (now numbering 438 members) by towns. The governor and lieutenant-governor are elected by a majority of votes. The executive council is composed of eight members, one elected from each of the eight council districts into which for such purpose the State is divided. The judiciary consists of a supreme court, courts of common pleas, a superior court, a municipal court for Suffolk County, and probate courts. The supreme court, with a chief and five associate justices, has exclusive jurisdiction in all capital crimes, and exclusive chancery jurisdiction so far as chancery powers are given by statute, and concurrent original jurisdiction in all civil cases where the amount in dispute exceeds $3,000 in Suffolk County and $300 in other counties. It holds law terms in eight of the fourteen counties of the State for the whole State, and *nisi prius* terms in all the counties. The court of common pleas is held for the trial of civil cases above $20, and has criminal jurisdiction in all cases except murder. Frequent terms are held in all the counties except Suffolk, which has special courts, the municipal courts holding monthly and the superior court bi-monthly terms. Justices of the peace have a limited civil and criminal jurisdiction. The county or probate courts are composed each of one judge with a registrar; and in 1856 the legislature established insolvent courts in each county. All judges are appointed by the governor, with the advice and consent of the council, and hold office during good behavior.

24. The institutions supported in part or wholly by the State are more numerous than in any other State. The principal are the lunatic asylums at Worcester, Taunton, and Northampton (and besides these there are hospitals of this class at South Boston, Somerville, and Pepperell); the State Prison at Charlestown; the State Reform School at Westboro'; the State Industrial School for Girls at Lancaster; the School for Idiotic and Feeble Minded Youth at South Boston and the State almshouses at Tewkesbury, Bridgewater, and Monson, etc. Otherwise the State is full of charitable and benevolent institutions.

25. The ordinary revenue of the State for the year ending 31st December, 1850, amounted to $492,811, and in 1855 to $1,147,816. The total revenue in the years respectively amounted to $1,540,319 and $2,443,573. The ordinary expenditures amounted to $850,225 and $1,203,907, and the total expenditures to $1,416,281 and $2,286,451. The chief sources of the ordinary income are the State tax, the bank tax, school fund and interest, and railroad dividends, etc. The liabilities of the State on the 1st of January, 1856, were—funded debt, $1,764,000, temporary loans and sums due $678,162, and liabilities for scrip loaned to the various railroads, $5,049,555. The value of property owned by the commonwealth amounted to $11,744,626, of which $4,038,587 was productive, $2,656,483 non-productive, and $5,049,555 mortgages on various railroads. The valuation of taxable property in the State in 1850 amounted to $546,003,057, and in 1855 to $597,936,995.



OBSERVATORY AT WILLIAMS COLLEGE—LAT. 42° 42′ 49″ N., LONG. 73° 13′ 10″ W.

26. The schools of Massachusetts rank among the best conducted and most efficient in the world. In 1850 the number at school was as one to every 4.48 of the total population. The statistics of the year as given in the federal census are as follows:

Classes.	Number.	Teachers.	Scholars.	Income.
Primary and public schools	3,679	4,443	176,475	$1,006,795
Academies and private schools	381	521	12,774	310.177
Collegiate institutions	6	85	1,043	107,901

—making a total of 4,066 school, 5,049 teachers, and 190,292 scholars, and $1,424,873. The total number on the school registers was 222,220 scholars. The number of persons over 20 years of age unable to read and write was 28,345, of which 1,861 were native born and 26,484 foreign born; 27,539 were white and 806 free colored persons, and 11,953 were males and 16,392 females. The public schools of this State are supported by the proceeds of the school fund and special town taxes. There are also large permanent funds, the interest of which is applied to the support of academies, and the State makes annual appropriations for the normal schools, teachers' institutes, and college scholarships. The whole system is under the supervision of a board of education, composed of the governor and lieutenant-governor of the State and eight members, one of whom is appointed each year by the governor and council for eight years.

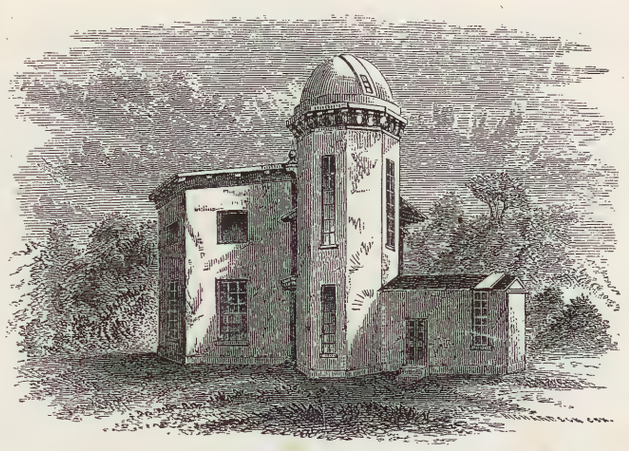
* Including enrolled and licensed tonnage engaged in the coasting trade and fisheries.

† This includes all companies reporting to the State authorities; the actual length of road within the State is not more than 1,200 miles.

27. The collegiate institutions in Massachusetts are (1855) as follows:

Institutions.	Location.	Founded.	Professors.	Alumni.	Students.	Libraries.	Commencement.
Harvard University	Cambridge	1636	24	6,700	365	101,250	3d Wed. in July.
Williams College	Williamstown	1793	9	1,557	224	1,500	1st Wed. in Aug.
Amherst College	Amherst	1821	14	1,147	218	20,000	2d Thurs. in Aug.
Holy Cross (R. Cath.) Col.	Worcester	1843	9	—	80	12,000	1st Mon. in Sept.
Tuft's College	Somerville	1854	5	—	80	3,000	2d Wed. in July.
Dane Law School (Harvard University)	—	—	3	—	111	14,000	3d Wed. in July.
Divinity School (Harvard University)		1816	2	295	14	8,700	3d Wed. in July.
Theological Seminary	Andover	1807	5	1,606	101	21,259	——
Theological Institution	Newton	1825	4	201	33	5,500	——
Medical School (H. Univ.)	Boston	1782	6	699	104	--	1st Wed. in Nov.
Berkshire Med. School	Pittsfield	1823	5	473	103	—	1st Thur. in Sept.

—and besides the above it may here be stated that many of the academies in this State are essentially collegiate institutions, only wanting the powers to grant degrees.



OBSERVATORY AT AMHERST COLLEGE—LAT. 42° 22′ 16″ N., LONG. 72° 31′ 28″ W.

28. In 1850 the total number of churches in Massachusetts was 1,475, with accommodation for 691,823 persons, and owning property valued at $10,206,184. The most numerous denominations are the Congregational, and then the Baptist, Methodist, and Unitarian; and after these, according to their numerical force, the Universalist, Roman Catholic, Episcopalians, and Friends. Presbyterianism has but a comparatively few adherents, nor are any of the other denominations large.

29. In 1855 Massachusetts contained thirteen cities with populations ranging from 12,680 to 160,508; seventeen towns with 6,049 to 13,750; eleven towns with 5,000 and 6,000, and nineteen towns containing between 4,000 and 5,000 inhabitants. The cities with their population at various periods are as follows:

Cities.	1790.	1800.	1810.	1820.	1830.	1840.	1845 *	1850.	1855.*
Boston, *Suffolk Co.*	18,038	24,027	32,250	43,298	61,392	93,383	114,366	136,881	160,508
Lowell, *Middlesex Co.*	—	—	—	200	6,474	20,796	28,841	33,383	37,553
Worcester, *Worcester Co.*	2,094	2,411	2,577	2,962	4,173	7,497	11,514	17,049	22,286
Charlestown, *Middlesex Co.*	—	—	4,959	6,591	8,787	11,448	12,500	17,216	21,742
Salem, *Essex Co.*	7,921	9,457	12,613	12,731	13,895	15,082	17,000	20,264	20,934
Cambridge, *Middlesex Co.*	2,115	2,453	2,323	3,295	6,072	8,409	12,490	15,215	20,473
New Bedford, *Bristol Co.*	3,313	4,361	5,651	6,947	7,592	12,087	14,000	16,443	20,389
Roxbury, *Norfolk Co.*	2,226	2,65	3,669	4,135	5,247	9,089	13,929	18,364	18,477
Lawrence, *Essex Co.*	—	—	—	—	—	—	1,000	8,282	16,081
Lynn, *Essex Co*	2,191	2,887	4,087	4,515	6,138	9,367	11,800	14,257	15,713
Springfield, *Hampden Co.*	—	2,812	2,967	3,914	6,784	10,985	14,703	11,766	13,788
Newburyport, *Essex Co.*	4,837	5,946	7,634	6,852	6,375	7,161	8,500	9,572	13,354
Fall River, *Bristol Co.*	—	—	1,296	1,594	4,159	6,738	10,290	11,524	12,680

—and the following are the chief towns or those having in 1855 upward of 6,000 inhabitants—Taunton, 13,750; Chelsea, 10,151; Gloucester, 8,935; Dorchester, 8,359; Nantucket, 8,064; Haverhill, 7,940; Chicopee, 7,576; Milford, 7,489; Adams, 6,980; Abington, 6,936; Marblehead, 5,933; Newton, 6,768; Weymouth, 6,530; Pittsfield, 6,501; Fitchburg, 6,486; Plymouth, 6,486; Waltham, 6,049.

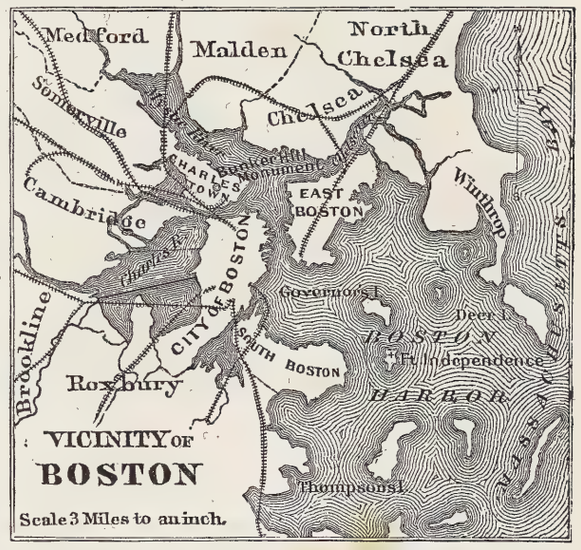
30. Boston, the capital and commercial metropolis, is situated at the west extremity of Massachusetts Bay, in latitude 42° 21′ 22″, and longitude 71° 4′ 9″. The city consists of Old Boston, East Boston, and South Boston. Old Boston occupies a peninsula containing from 700 to 720 acres, with a hilly surface, rising in one instance to 138 feet above the sea, and connected by the "Neck" with the mainland on the south. This isthmus, once overflowed by the tides, has been raised and widened so as to afford space for several avenues, and otherwise seven bridges and several steam ferries connect Boston proper with the mainland and also with East and South Boston. These are irrespective of the railroad bridges. South Boston extends about two miles along the south shore of the harbor, and embraces about 600 acres, varied in surface, and well laid out into streets and squares. Near the center, and two miles from the State House, are Dorchester Heights, about 130 feet elevation, which afford a fine view of the city and harbor. East Boston occupies the western part of Noddle's Island, and contains 630 acres with extensive flats. This island, which is of uneven surface, is about equidistant between Old Boston and Charlestown. Already it has become a thriving quarter, particularly as regards ship-building and general manufactures. It is also the station of the Cunard steamers, which have here a magnificent wharf. These several parts of the city, with Chelsea, North Chelsea, and Winthrop, constitute the county of Suffolk. In the vicinity, for 10 miles around, and connected with it by railroad and other means, are numerous flourishing towns and villages, which make up a populous metropolitan district.



BOSTON, FROM ABOVE CHELSEA BRIDGE.

31. Originally laid out in consonance with the uneven surface of the site, the streets of Boston are by no means regular, but of late years great improvements have been made to remedy this defect. Nevertheless Boston is entitled to be considered as one of the handsomest cities of America. The "Common" is a spacious public ground of some 50 acres, inclosed with a costly iron fence, and is in part occupied by a botanic garden. In the newer portions of the city there are other public grounds, some of which have been laid off and ornamented with shade trees, fountains, etc. Of the streets, those called Washington and Tremont are by far the best, and have become the promenades of fashion.

32. Boston Harbor is one of the largest and best in the world. It opens to the sea between Point Alderton, on Nantasket, and Point Shirley, in Chelsea, distant from each other about four miles. It is sheltered from the ocean by several islands and the peninsulas of which the foregoing points are the extremities. The main entrance, between Castle and Governor's islands, is very narrow, and strongly defended. Its area is about 70 square miles, and about one half affords good anchorage for the largest vessels. It is seldom obstructed by ice. The surface is thickly studded with islands. Into this basin the Charles, Mystic, Neponset, and other streams empty their waters.



33. Boston has many public buildings which are interesting from their associations or on account of their substantial structure. Among these the State House is conspicuous. It stands on the height of Beacon Hill, fronting on the Common. This edifice is 173 feet long and 61 feet wide, with a dome 50 feet diameter and 30 feet high, the summit being 130 feet above the ground. From its cupola the view is grand, and encompasses the whole city, vicinity, and harbor. On the entrance floor stands a fine statue of Washington, by Chantrey. The Hall of Representatives occupies the center of the main floor, flanked on the east by the Senate Chamber and on the west by the Council Chamber. The old State House is still standing at the head of State Street.

34. Faneuil Hall, the "cradle of liberty," in which the statesmen of the Revolution were wont to harangue the people, stands in Dock Square. It is 100 feet long, 80 feet wide, and of three stories. Faneuil Market, east of Faneuil Hall, is 500 feet long, 50 feet wide, and of two stories, with a dome. It is one of the finest market-houses in the Union. The second story is called Quincy Hall, and consists of several apartments, which may, as occasion requires, be thrown into one spacious room. There are several other markets in Old Boston and also in East Boston and South Boston.

35. The Custom House and Exchange are also handsome buildings. The first occupies a site at the head of Long Wharf, fronting the harbor. It rests on a foundation of 3,000 piles, is a cruciform edifice of granite, and surmounted by a dome. It is 140 feet long, and, including the arms of the cross, 95 feet wide, each front being adorned with a portico of six Doric columns. The cost of the building was $1,076,658. The Merchants' Exchange is a large-fire proof building on State Street, length 250 feet and breadth 76 feet. The front is of Quincy granite, with four pilasters, each a single stone 45 feet high and weighing between 50 and 60 tons. The roof is of wrought iron. The City Hall, Court House, and City Prison are also fine substantial buildings; and among other notable edifices mention must be made of the Freemasons Hall, the Tremont Temple, and the Music Hall.

36. Boston contains upward of a hundred churches; of these Christ Church, built in 1723, is the oldest. The old South Meeting-house, erected seven years later, is associated with numerous Revolutionary incidents.

37. In the number of its educational and literary institutions this city is conspicuous, and as the "modern Athens" has no competitor. It has about 200 primary schools and numerous grammar, high, and Latin schools, which are attended by about 25,000 children and youths of both sexes. Nearly a million and a half dollars have been expended upon school buildings, and nearly $400,000 are annually expended in their support. Among the supplementary institutions of education may be named—the Athenæum, with a library of more than 50,000 bound volumes, 20,000 pamphlets, and 500 volumes of engravings, with collections of coins, paintings, sculpture, etc.; and the Apprentices' Library, also an institution of exceeding value to the classes to whose benefit it is devoted. Otherwise than these may be mentioned the institutions of the Boston Library Society, the American Academy of Arts and Sciences, the Mercantile Library Association, the Lowell Institute, the American Oriental Society, the American Statistical Association, the Boston Lyceum, etc. About 100 periodicals are issued in Boston, treating on all subjects, and among these are twelve daily newspapers.

38. The benevolent institutions of the city are numerous and well endowed. Among these

* According to State census.

the Massachusetts General Hospital has the first place, and with its branch, the McLean Asylum for the Insane, constitutes an institution worthy of a great people. The Perkins' Institution and Massachusetts Asylum for the Blind, in South Boston, is an equally deserving institution; and there are also in South Boston the City Lunatic Hospital and the House of Industry and Reformation. In the western part of the city is the Eye and Ear Infirmary.

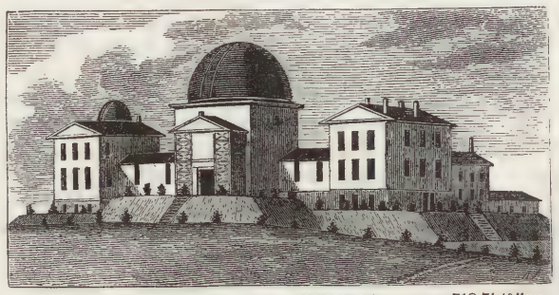
39. In industrial pursuits Boston ranks among the first of American cities, alike in manufactures and commerce. Its manufactures comprise machinery of every kind, and all the products which make up a varied and extensive manufacturing city. But it owes its fame more to its commercial pursuits and the industries connected therewith, ranking next to New York in this respect. Its foreign connections extend to almost every country of the world, and its coasting trade from Eastport to the Rio Grande. In 1855 the number of arrivals from foreign ports numbered 3,144 (707,924 tons), and of departures outward 2,944 (687,825 tons). During the year 63 vessels (56,496 tons) were built in its ship-yards. The trade of Boston with the British provinces has also become very extensive, and has yearly increased largely under the operation of the reciprocity treaty. Boston has 37 banks, with a capital of upward of $33,000,000, and is the great monetary center of New England.

40. The city is governed by a mayor and councils, and is one of the best regulated cities in America. It is well supplied with water, brought in pipes (more than 100 miles are now laid) from Cochituate Lake, 20 miles west of the city, at a cost of about $5,500,000; is lighted with gas, and is kept remarkably clean.

41. The early settlers chose for their residence, in 1630, the peninsula, which at that period was divided at high tide into two islands. It was called "Shawmut" or "Tremont," the first having reference to its sources of water, and the latter to its topography, in which figured three lofty hills. Boston soon became an important sea-port, and at an early period distinguished for its enterprise and trade, and was peculiarly noted for its ship-building and fisheries. In 1740 it contained 17,000 inhabitants. For more than half a century succeeding, the growth of the city was checked by wars and the restrictive policy of England, and hence, in 1790, the city contained only 18,038 inhabitants. Before the Revolution it was the first commercial city of the coast, and its reputation identified with the progress of the country. During that eventful struggle its citizens were compelled to abandon their firesides, and their commerce was literally ruined. In the common cause its sacrifices were great, and its recovery from its disasters slow. New York and Philadelphia consequently outstripped Boston in material progress. Since 1790, however, the city has rapidly advanced. Its merchants embarked largely in the India and China trade, in voyages to the northwest coast, and in the fisheries, carrying trade, etc., and opened an extensive trade with Russia, the Mediterranean, South America, England, and the British American colonies. When, in 1812, commerce was embarrassed by the embargo, manufactures were inaugurated, which have ever since been expanding, and have now become a vast interest. More recently its citizens have taken a deep interest in railroads, and opened to the city an interior to which nature gave no access.

42. The peninsula on which the old city stands has for a long period been inadequate for its wants, and other large outlying districts have been annexed, the principal of which are Dorchester Point and Noodle's Island, and considerable surface has been reclaimed from the waters. Outside its chartered limits is found a population already equaling in numbers that within. Chelsea, northeast of Boston proper, and, in fact, a suburb of the city, is handsomely situated on the Eastern Railroad, and contains the United States Marine Hospital. Charlestown, on a peninsula immediately north of Boston, and connected therewith by Warren and Charles River bridges, is the site of the United States Navy Yard and of a State Prison. It is a busy commercial place. The exploits of the people of Boston within its limits at the commencement of the Revolution are matters of history, and are commemorated in the grand monument on Breed's (commonly called Bunker) Hill, an eminence which rises near the center of the peninsula on which the city is built.

43. Cambridge is a city about three miles west-northwest Boston, and comprises Old Cambridge, East Cambridge (formerly Lechmere Point), Cambridgeport, midway between Cambridge and Boston, and the district of North Cambridge. Old Cambridge is delightfully situated on the rise from Charles River, and is the seat of Harvard University, the oldest and best endowed collegiate institution in the United States. East Cambridge, which is connected with Boston by the Prison Point Bridge, is noted for its manufactures of glass. Cambridgeport, also connected with the metropolis by a bridge, has an extensive car factory and other manufacturing establishments.



OBSERVATORY AT CAMBRIDGE—LAT. 42° 22′ 48″ N., LONG. 71° 7′ 40″ W.

44. Three miles south Boston, and connected therewith by what is termed the "Neck," now a splendid viaduct, stands Roxbury, built on a rugged site, and commanding extensive views of Boston and vicinity. Of late years it has become a favorite place of residence for the Bostonians, and contains numerous elegant mansions surrounded by shrubberies and garden plots. Its general interests are also connected with Boston; it has, however, a considerable trade of its own, and also several large manufacturing establishments, etc. A short distance back from the city is the Forest Hills Cemetery.

45. Northerly from Boston, and in Essex County, are Lynn, Salem, Newburyport, and Lawrence. Lynn, 11 miles north by the Eastern Railroad, is situated on the northeast shore of Massachusetts Bay and amid the most picturesque scenery. The Nahant peninsula and the beaches in the vicinity are noted places of summer resort. Lynn has long been celebrated for the manufacture of women's shoes, which it exports largely to all parts of the Union, and it is, perhaps, below the truth to say that 5,000,000 pairs are annually manufactured in the city, besides about 500,000 pairs in the neighborhood. Besides the above there are manufactories of leather, morocco, printed cottons, machinery, chocolate, glue, etc.

46. Salem, five miles farther north, is situated on a tongue of land formed by two inlets of the sea. It has a convenient harbor, and is an important commercial town, though the greater part of the foreign trade it formerly enjoyed has been transferred to Boston. Manufacturing is carried on to a considerable extent, chiefly chemicals, leather, machinery, cordage, oil, paint, etc. The city is also largely engaged in the fisheries and coasting trade. Railroads connect it with all the interior, and a branch railroad with Marblehead. From Beverly, on the opposite side of the north inlet, another branch diverges to Gloucester. Salem is the seat of a State Normal School. Next to Plymouth, Salem is the most ancient town of New England, having been settled in 1626. The "witches of Salem" are of historical renown—nineteen of them suffered martyrdom in 1692–3.

47. Newburyport, 20 miles farther north, stands on the south bank of the Merrimac, and at the junction of the Newburyport and Eastern railroads. The harbor, eight miles from the sea, is spacious and safe, but at its entrance is obstructed by a moving sand-bar. The town is considered one of the most attractive in New England. It is built on a gentle acclivity, and is laid out as a regular parallelogram. Near its center, on a hill 60 feet high, is a pond of about six acres, which has been surrounded by a wall and terraced promenade. The principal public buildings are the Custom House, Court House, and City Hall; and the city contains a well-ordered lyceum. The commerce of this port was formerly large, and is again reviving; but its trade is chiefly coastwise, and a large amount of its tonnage is employed in the cod and mackerel fisheries. Its manufactures consist of cotton goods, machinery, boots and shoes, etc. The celebrated George Whitfield died at Newburyport on the 30th September, 1770.

48. Lawrence, also on the south bank of the Merrimac, 21 miles southwest Newburyport, and 26 miles north Boston, is a new town which has almost instantaneously risen to importance as a manufacturing center. In 1845 a dam was constructed across the river by which a fall of 22 feet was obtained, and also a canal to conduct the water to the mills. On this basis the manufactures of the place have been built up, and at the present day, in the manufacture of textile fabrics, it ranks among the first cities of the world. Otherwise the manufactures of Lawrence comprise nearly every article embraced in the various branches of mechanical industry. The town is lighted with gas and is abundantly supplied with pure water from the river. Near its center is a handsome common of 18 acres. In its schools and educational institutions it has great advantages. Lawrence derives its name from the family so called, and of which Abbott and Amos Lawrence were the illustrious representatives. Six lines of railroad diverge from this town to Boston, Salem, Newburyport, Portland, Manchester and Concord, and Lowell, affording unsurpassed facilities for intercourse and business.

49. Lowell is situated on the Merrimac, 13 miles southwest from Lawrence by the Lowell and Lawrence Railroad, and 26 miles northwest from Boston by the Boston and Lowell Railroad, both of which here join the Lowell and Nashua Railroad for Nashua, Concord, and the north. A railroad also communicates with Salem, 24 miles to the southeast. It is the first manufacturing city of New England, enjoying a vast water-power in the Pawtucket Falls, and increased facilities from artificial works. So late as 1822 the site of this now populous city contained scarcely 200 inhabitants. It has already upward of fifty mills, employing a capital of $20,000,000, and about 15,000 hands. The products are chiefly cotton and woolen goods, carpets, machinery, paper, batting, etc. About a third of the population is of foreign birth, and the remainder from various parts of New England, especially Maine and New Hampshire. Great efforts are made to avoid the immorality incident to manufacturing cities, and have been so signally successful that the farmers have no fear as to the safety of their children employed in the mills. This result has been produced by furnishing the operatives with ample means of social and intellectual improvement and of innocent amusement. More than half the operatives have deposits in the savings' bank. The economies of the establishments are also complete; they are heated by steam and lighted with gas, and every attention is paid not only to the conveniences but also to the comforts of the employed. The city derives its name from Francis C. Lowell, a Boston merchant, who distinguished himself by his efforts in promoting the cotton manufacture in America.

50. West-southwest from Boston, distant 45 miles, is the city of Worcester. Latitude 42° 16′ 17″, and longitude 71° 48′ 13″. The city is built partly in a valley environed by beautiful hills and partly on an elevation which rises toward the west. It is laid out regularly, with broad and handsome streets, is well-built, and contains a fine city hall, the county court-house, and numerous churches and schools. It is the seat of Holy Cross College, a Roman Catholic institution. The State Lunatic Asylum occupies an elevated side to the east of the city. The manufactures of Worcester are various and extensive, and include cotton and woolen goods, carpets, castings, fire-arms, railroad cars, hollow ware, wire, paper, leather goods, etc. The commercial facilities of the city have been largely increased by the opening of numerous railroads to the principal centers—to Boston and Albany east and west, to Providence and Norwich southerly, and to Fitchburg, Concord, etc., northerly. The Indian name of Worcester was Quinisigamond. On the east bank of the Connecticut River, and 54 miles west by the Western Railroad, is

51. Springfield, a rich and flourishing city. The site occupies the river bottom and the western edge of an elevated plain extending many miles eastward. It is one of the handsomest cities of America. The distinguishing manufactures of Springfield are machinery, locomotives, railroad cars, paper, etc. It is also the seat of one of the principal federal arsenals. Two bridges connect the city with West Springfield, and several ferries ply between the two places. During navigation a steamboat also plies to and from Hartford, connecting with the New York steamers. The Western Railroad, pointing east and west, to Albany and Boston, is here joined by the New Haven, Hartford and Springfield Railroad from the south and the Connecticut River Railroad from the north. A branch railroad also connects Springfield with Chicopee, an industrious manufacturing town on the north, and formerly a constituent portion of the town of Springfield.

52. In the southeast part of the State the principal towns are New Bedford, Taunton, and Fall River. New Bedford is a large and flourishing commercial city, on Acushnot, a small estuary of Buzzard's Bay, by railroad 55 miles south from Boston, and in latitude 41° 38′ 7″, and longitude 70° 55′ 49″. The city is built on a rise and has a beautiful appearance from the water; the streets are laid off regularly and adorned with shade trees, and the houses are frequently surrounded with ornamental grounds. The Town Hall is one of the handsomest civic structures in the State, and cost upward of $60,000, and the Custom House, which also

contains the post-office, is a substantial granite structure. There are upward of 20 churches, with numerous schools, etc., and a good city library. New Bedford is one of the wealthiest places in New England, and has a larger interest in the whale fisheries than any other town of the Union. This business has distinguished it for nearly 100 years, and may now be valued at five million dollars annually. It has also a considerable foreign trade. Its manufactures are such as depend on its peculiar industries, as oil and candle factories, roperies, coopers' shops, etc., and also ship-building establishments. New Bedford is connected with Fall River, Taunton, Providence, and Boston by railroad, and by steamboat with Holmes' Hole and Nantucket.



UNITED STATES ARSENAL, SPRINGFIELD.

53. Taunton, 20 miles north-northwest New Bedford, is a manufacturing town at the head of navigation on Taunton River. It contains a State lunatic asylum and several fine civic buildings, and about a dozen churches. Its manufactures are various and extensive, and comprise machinery and hardware of various descriptions, paper, leather, etc. One of the largest locomotive and steam-engine manufactories in the Union has its seat in this town, and there are two extensive print-works. The Taunton River furnishes a good water-power, and is navigated by small vessels employed in the coasting trade.

54. Fall River is situated at the entrance of Taunton River into Mount Hope Bay, the eastern arm of Narragansett Bay, and at the south terminus of the Old Colony and Fall River Railroad, 54 miles from Boston. It is a well-built town, chiefly of granite quarried in the vicinity, and contains a fine town-hall and 12 or 15 churches. The streets are adorned with shade trees. The river, from which the town derives its name, is about two miles in length, and has a descent of some 130 feet in the last half of its course, which furnishes immense water-power. The principal manufacture is that of cotton goods, but it has also extensive machine shops and other factories. The harbor is deep, capacious, and of easy access, and the port enjoys a considerable trade, foreign as well as coastwise, and is also largely engaged in the whale fisheries. It is connected with New York by a daily line of steamboats. On the 2d July, 1843, this city was visited by a disastrous fire, which consumed about 200 buildings. New Bedford and Taunton are the two capitals of Bristol County. Fairhaven, on the Acushnot, opposite New Bedford, and connected with that city by a bridge, is largely engaged in the whale fisheries It has a "fair haven," spacious, and about a mile long. A branch of the Cape Cod Railroad connects it with Boston.

55. Besides the cities and towns already noticed, Massachusetts contains a large number of others deserving mention, some on account of their historical and others of their industrial importance. These are noticed in the following table:

Names, etc.	For what remarkable.	Pop. 1850.	Pop. 1855.
Barnstable..*on Barnstable Bay*..	BARNSTABLE Co.—Coasting trade and fisheries	4,901	4,996
Provincetown.....*on Cape Cod*..	—Mackerel fishery—Wealth of its citizens	3,157	3,096
Sandwich ...*on Cape Cod Bay*..	—Terminus of Cape Cod Branch R.R., 80 miles S. E. Boston..	4,368	4,495
Adams .....*on Hoosac*..	BERKSHIRE Co.—Manufactures—Terminus of Pittsfield and North Adams R.R.—Saddle Mountain and natural bridge on Hudson's Brook	6,172	6,980
Gr. Barrington..*on Housatonic*..	—Edged tools, sheeting, India-rubber goods, etc.—Iron ore and quarries of variegated marble	3,264	3,449
Lee .....*on Housatonic*..	—Woolen, paper, and cotton mills	3,220	4,226
Pittsfield	—Railroad center—Medical school—Woolen and cotton goods, machinery, railroad cars, fire-arms, etc	5,872	5,501
Sheffield .....*on Housatonic*..	—Paper, marble, etc	2,769	2,624
Stockbridge .....*on Housatonic*..	—Woolen goods	1,941	2,058
Williamstown	—Williams College—Woolens, boots and shoes, carriages	2,626	2,529
Attleboro'.....*on Mill River*..	BRISTOL Co.—Printed calicoes, metal buttons, straw hats, clocks, etc.	4,157	5,451
Dartmouth...*on Buzzard's Bay*..	—Whale fishery	3,868	3,658
Fairhaven ...*on Buzzard's Bay*..	—Ship-building and whale fishery	4,304	4,693
Pawtucket.....*on Pawtucket*..	—Four miles N. E. Providence, and partly in the State of Rhode Island—Machinery, thread, cotton goods, etc.—Coasting trade—First cloth manufactory established 1790	3,753	4,132
Seekonk.....*on Seekonk*..	—Manufactures	2,243	2,304
Edgartown ..*on Martha's Vine*..	DUKE'S Co.—Commerce and fisheries—Small but safe harbor	1,990	1,898
Amesbury .....*on Merrimac*..	ESSEX Co.—Manufactures—Terminus of Branch R.R.	3,143	3,585
Andover .....*on Merrimac*..	—Flannels, linens, etc.—Theol. Seminary—Phillips' Academy	6,945	4,910
Beverly .....*on Ann Arbor*..	—Opposite Salem—Commerce and fisheries—Carriages, Britannia ware, cotton and woolen goods, etc	5,876	5,944
Danvers and South Danvers	—Leather and boots and shoes	8,109	9,348
Gloucester.....*on Cape Ann*..	—Commerce and fisheries—Settled 1624	7,786	8,935
Haverhill.....*on Merrimac*..	—At head of navigation, opposite Bradford, ...—Boots and shoes, bricks, etc	5,877	7,940
Marblehead	—Coasting trade and fisheries—Boots and shoes	6,167	6,933
Salisbury.....*on Merrimac*..	—Cotton and woolen goods	3,100	3,185
Greenfield .....*on Connecticut*..	FRANKLIN Co.—Cutlery and carpenters' tools	2,580	2,945
Chicopee .....*on Chicopee*..	HAMPDEN Co.—Cotton and woolen goods, paper, machinery	8,291	7,576
Holyoke .....*on Connecticut*..	—Opposite South Hadley—Lawns, silks, and cotton goods; machinery, etc.—Hadley Falls.	3,245	4,639
Monson	—State Almshouse—Cotton and woolen goods	2,831	2,942
Palmer	—Cotton and woolen goods, boots and shoes, castings, etc	3,974	4,012
Westfield .....*on Westfield*..	—State Normal School—Westfield Academy, incorporated 1793	4,181	4,575
Amherst	HAMPSHIRE Co.—College—Machinery, edge tools, cotton goods	3,057	2,937
Belchertown	—Carriages, sash and blinds, etc	2,680	2,698
Northampton ...*on Connecticut*..	—Lunatic Asylum—Water-cure—Boots and shoes, cotton, wool, and silk goods, leather, iron, paper, cabinet ware, etc.	5,278	5,819
South Hadley ...*on Connecticut*..	—Hadley Falls—Mt. Holyoke—Ginghams, satinets, etc	2,495	2,051
Ware .....*on Ware*..	—Cotton, woolen, straw goods—Tin, copper ware, etc	3,735	3,498
Williamsburg	HAMPSHIRE Co.—Iron castings, machinery, edge tools, carriages..	1,537	1,831
Brighton	MIDDLESEX Co.—Cattle market—Four miles W. Boston	2,356	2,895
Concord.....*on Concord River*..	—Flannels, pencils, boots and shoes, carriages, etc.—Battle 19th April, 1775	2,206	2,250
Framingham	—Cochituate Lake—Blankets, coatings—State Normal School.	4,252	4,676
Groton .....*on Nashua*..	—Railroad center—Lawrence Academy	2,515	2,745
Holliston	—Boots and shoes, combs, cotton goods, straw hats, etc.	2,428	2,894
Hopkinton	—Boots and shoes—Mineral spring	2,801	3,934
Lexington..11 *m. N. W. Boston*..	—Battle 19th April, 1775—Monument	1,894	2,549
Malden.....*on the Malden*..	—Five miles N. Boston—Tin ware, India-rubber goods, lasts and trees, leather, coach lace and tassels, iron pipes, etc., dyeing and staining	3,520	4,591
Marlboro'	—Boots and shoes	2,941	4,288
Medford .....*on Mystic*..	—Tuft's College—Ship-building, etc	3,749	4,615
Natick	—Boots and shoes	2,744	4,188
Newton .....*on Charles*..	—Baptist Theological Institute—Falls—Iron works, machinery, paper, cotton, etc	5,258	6,768
Pepperell.....*on Nashua*..	—Lunatic Asylum	1,754	1,764
Somerville.....*on Mystic*..	—Copper-tubing, glass, dyeing, etc.—McLean Asy.—Tuft's Col.	3,540	5,806
Tewkesbury.....*on Merrimac*..	—State Almshouse	1,048	1,722
Waltham .....*on Charles*..	—Cotton goods, boots and shoes, etc.—Prospect Hill	4,464	6,049
Watertown.....*on Charles*..	—United States Arsenal—Various manufactures	2,837	3,578
Woburn ...*on Middlesex Canal*..	—Boots and shoes, leather, carriages etc	3,956	5,451
Nantucket ...*on Nantucket Isl*..	NANTUCKET Co.—Whale fishery—Boots, shoes, oil, candles, etc....	8,452	8,064
Braintree	NORFOLK Co.—Boots and shoes, machinery, woolens, etc	2,969	3,472
Brookline.....*on Charles*..	—A suburb of Boston remarkable for its beauty	2,516	3,740
Dorchester .....*on Boston Bay*..	—Paper, cotton goods, chocolate, tin and iron wares	7,969	8,358
Medway	—Thread, prints, osnaburgs, cotton flannel, boots, shoes, etc...	2,778	3,230
Quincy .....*on Boston Harbor*..	—Granite quarries—Quincy, Hancock, and the Adams, father and son, born here—First R.R. in the U. S. opened 1828 ..	5,017	5,921
Randolph	—Boots and shoes	4,741	5,538
Stoughton ...	—Boots and shoes, cotton goods, thread, etc	3,494	4,369
Weymouth...*on Boston Harbor*..	—Boots and shoes—Coasting trade	5,369	6,530
Wrentham.....*on Charles*..	—Straw bonnets and cotton goods	3,037	3,245
Abington	PLYMOUTH Co.—Boots and shoes, nails, etc	5,269	6,936
Bridgewater	—Boots and shoes—State Almshouse—State Normal School	2,79	3,363
Hingham ..*on Massachusetts B*...	—Hats, castings, plumes—Fisheries, etc	3,980	4,256
Middleboro'.....*on Taunton*..	—Prints, sheetings, castings, carriages, boots, shoes, etc	5,336	4,234
North Bridgewater	—Boots and shoes	3,940	5,208
Plymouth....*on Plymouth Bay*..	—Pilgrims landed, 22d Dec., 1620—Cotton and iron	6,124	6,486
Wareham....*on Buzzard's Bay*..	—Iron works	3,186	3,246
Chelsea	SUFFOLK Co.—U. S. Marine Hospital—Suburb of Boston	6,701	10,151
North Chelsea	—Suburb of Boston	935	793
Winthrop	—Suburb of Boston; taken from Chelsea 1852	—	866
Blackstone.....*on Blackstone*..	WORCESTER Co.—Printed muslins	4,391	5,353
Fitchburg	—Railroad center—Paper, machinery, wood ware, etc	5,120	6,486
Grafton .....*on Blackstone*..	—Boots and shoes, leather, cotton goods, etc	3,904	4,409
Lancaster .....*on West Branch*..	—State Industrial School for girls—Ginghams, etc	1,688	1,725
Milford	—Various manufactures	4,819	7,489
Milbury .....*on Blackstone*..	—Woolen and cotton goods, carpets, etc	3,031	3,286
Southbridge....*on Quinnebaug*..	—Mousselines de la ne	2,824	3,429
Uxbridge	—Woolen goods, etc	2,457	3,068
Westboro'	—Boots and shoes, sleighs, etc.—State Reform School	2,371	3,014
West Boylston	—Carriages, etc	1,749	2,310

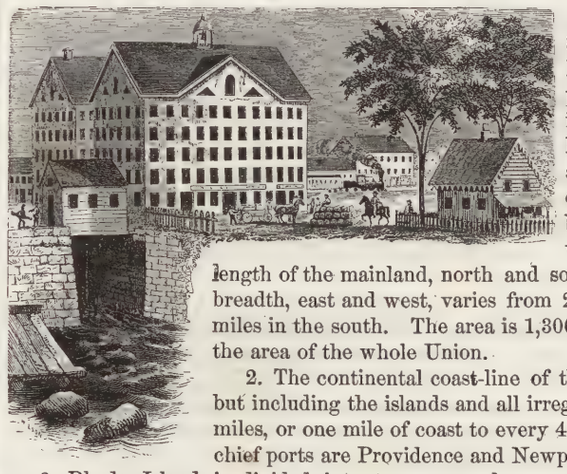
—most of the above-named towns are connected by railroad with Boston.



BATTLE MONUMENTS.

56. The territory of Massachusetts was settled by two separate colonies, viz., Plymouth colony, which landed at Plymouth, December 22d, 1620, and the colony of Massachusetts Bay, which founded Salem in 1626. These colonies continued separate, and elected each their own governor annually until 1685–6, when they were deprived of their charters, and were placed under the government of Joseph Dudley, and afterward of Sir Edmond Andros. In 1692 they were united under a new charter into one colony, called Massachusetts, of which the governors were appointed by the crown of Great Britain until its power was thrown off in 1774. In the wars between France and England, the troops raised in Massachusetts for the campaign in Canada bore a most valiant part, and were the chief instruments of the successful issue of the conflict. The great expenses of this war led to the imposition of internal taxes on the colonies, and Massachusetts was the first to strenuously oppose these. Since the peace of 1783, the rank held by Massachusetts among the States in regard to general enterprise, in manufactures, commerce, internal improvements, aggregate wealth, support of schools, etc., has in proportion to its population been higher than any other in the Confederacy.

STATE OF RHODE ISLAND.



1. RHODE ISLAND, the smallest State of the Union, and, next to Massachusetts, the most densely populated, is situated between latitudes 41° 6′ and 42° 3′ north, and longitudes 71° 8′ and 71° 54′ west; and is bounded on the north and east by Massachusetts, on the south by the Atlantic Ocean, and on the west by Connecticut. The extreme length of the mainland, north and south, is less than 50 miles, and its breadth, east and west, varies from 22 miles in the north to 33 or 37 miles in the south. The area is 1,306 square miles, or 0.04 per cent of the area of the whole Union.

2. The continental coast-line of the State measures only 45 miles; but including the islands and all irregularities it has an extension of 320 miles, or one mile of coast to every 4.08 square miles of surface. The chief ports are Providence and Newport.

3. Rhode Island is divided into two unequal proportions by the great bay Narragansett, which sets up in a north direction from the Atlantic Ocean. This fine sheet of water extends more than 30 miles inland, and is about 15 miles wide at its southern part; but a considerable portion of this space is occupied by islands. It communicates with the ocean between Point Judith (latitude 41° 21′ 35″, and longitude 71° 29′ 18″) on the west,

and Seconnet Point (latitude 41° 27′ 3″, and longitude 71° 11′ 18″) on the east. The northeastern arm of the bay is called Mount Hope Bay, which receives the Taunton River from Massachusetts; the northwestern arm is called Greenwich Bay; and the northern arm is called Providence Bay, the last of which is the recipient of Providence River. It affords great advantages to ship navigation, having many excellent harbors both on the mainland and islands, and being accessible at all seasons. Newport Harbor, in the channel between Canonicut and Rhode islands, is one of the finest of the world; the entrance is protected by Fort Wolcott, on Goat's Island, and Fort Adams, on Rhode Island—the latter a large stone castle of great strength. Providence Harbor, at the confluence of Providence River and the bay, is also an excellent shipping port, and has lately been improved by the removal of obstructions.

4. Rhode Island, lying in Narragansett Bay, gives name to the State. It is 15 miles long, and on the average three and a half miles wide. Its climate is delightful, and the soil very fertile. Travelers have called it the "Eden of America," and Newport, its principal town, has long been famous as the resort of invalids and the fashionable world in the summer season. Canonicut is a beautiful island to the west of Rhode Island. These islands, in connection with the mainland, form three several water entrances from the ocean. Canonicut is about seven miles long and one mile wide. Prudence Island lies to the northeast of Canonicut, and is of somewhat lesser extent. Projecting from the mainland southward is an extensive peninsula, which divides the northern section of the bay and forms the two arms known as Providence and Mount Hope bays before noticed.

5. About ten miles southwest of Point Judith is Block Island, which is about seven miles long and four miles wide, and is almost severed into two parts by a large salt pond. The islanders derive their support chiefly from fishing, but they have also large numbers of cattle and sheep, and produce cheese and butter of the finest quality. Block Island forms the town of New Shoreham, in Newport County, and in 1850 contained 1,262 inhabitants The population of the islands in Narragansett Bay at the same period was 12,584.

6. The surface of the mainland is generally hilly and broken; but nowhere does it present any elevation deserving of the name of mountain. The highest land in the State, Mount Hope, has only 300 feet elevation above the sea-level. In the neighborhood of Narragansett Bay, and on the islands within the same, the land is more level, and at most exhibits but slight undulations.

7. The rivers of this State are little more than mill-streams, with courses of not more than 50 or 60 miles in length, and discharging an inconsiderable amount of water; but as they descend from 200 to 450 feet, and are steady in their supply of water, they furnish valuable moving power, which is extensively applied to manufacturing purposes. The Pawtuxet, the principal river, rises in Massachusetts, where it has the name of Blackstone River, and running southeast into this State, falls into Providence River. There are falls of about 50 feet descent four miles from its mouth—below the falls it bears the name of the Seekonk River, and about equidistant between these and its confluence with the bay it receives Ten Mile River from Massachusetts. Providence River is formed by the Wanasquiatucket and the Mohasuck, two small streams which unite a short distance above the city of the same name. It falls into the northern arm of Narragansett Bay, and is navigable to Providence for ships of 1,000 tons burden. Pawtuxet River rises by several branches in the northwest part of the State, and flowing in an easterly direction, enters Providence River five miles below the city. Pawcatuck River, formed by Wood and Charles rivers, waters the southwestern section of the State, and falls into Stonington Harbor; and in the latter part of its course it is the boundary between this State and the State of Connecticut.

8. The same geological formation which distinguishes southeastern Massachusetts extends into the northern parts of Rhode Island. The southern section of the State is chiefly of a later era. The mineral productions are of comparatively little importance. Iron ore, however, is found in several places; and anthracite occurs, but although it has been pronounced to be of good quality, little has been done to bring it into use. It is found chiefly in the same graywacke formation with the Massachusetts coal. Limestone abounds in the northeastern section, and there are some excellent quarries of marble. Serpentine is also abundant; and there are in various places good quarries of freestone. Salt is manufactured along the sea-coast.

9. The climate, influenced by the vapors from the Atlantic, is remarkably mild, though changeable, and in its general characteristics is said to assimilate that of Great Britain. The seasons are more uniform than in the more northern parts of New England—the winters are sensibly less severe, and the heats of summer more temperate. Spring commences in March, and the summer reigns from June to September. The latter month and also October have delightful weather. With November the winter sets in, and continues to the middle or end of March. The air is at all times pure, and the longevity of the inhabitants bears witness of its salubrious qualities.

10. On the continental portions of the State the soil is generally a gravelly loam, which is tolerably fertile, but of difficult cultivation. The soils of the islands are slaty, yet they form the most productive and valuable lands of the State. There is very little alluvial land. Pine plains are found in several low regions, but there are no extensive forests. Oak, walnut, and chestnut are the prevailing growths, with some cedar. Fruits and culinary vegetables are produced in great perfection and in abundance. Grain is grown in considerable quantities in reference to the area of the State; but on the whole the lands are better adapted for grazing than for ordinary or cereal agriculture.

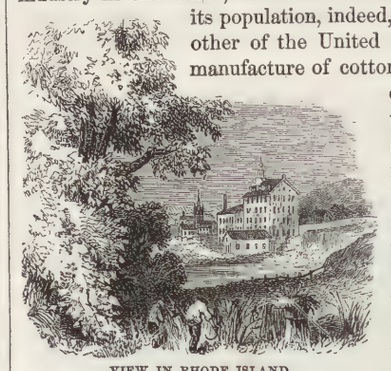
11. Rhode Island, in 1850, contained 147,545 inhabitants or 112.97 to the square mile, or 0.64 per cent. of the population of the Union. This was distributed as follows:

Counties.	Population.	County Seats.	Counties.	Population.	County Seats.	Counties.	Population.	County Seats.
Bristol	8,514	Bristol.	Newport	20,007	Newport.	Providence	87,526	PROVIDENCE.
Kent	15,068	E. Greenwich				Washington	16,430	Kingston.

—and consisted of 143,875 (97.51 per cent.) white persons—70,340 males and 73,535 females, and 3,670 free colored—1,738 males and 1,932 females; comprised in 28,216 families, occupying 22,379 dwellings. Of the total, 124,299 (84.25 per cent.) were Americans, of which number 102,641 were natives of Rhode Island, and 23,111 (15.66 per cent.) were foreign born, the remainder (135) being of unascertained origin. In other States there were 43,300 natives of Rhode Island. In 1790 Rhode Island contained 69,110; in 1800, 69,122; in 1810, 77,031; in 1820, 83,059; in 1830, 97,199; in 1840, 108,830, and in 1850 (as above) 147,545. The population in 1855 was estimated at 166,927.

12. The occupations of 43,471 free males over 15 years of age were ascertained by the census of 1850. Of these, 21,004 were engaged in commerce, trade, manufactures, mechanic arts, and mining; 8,482 in agriculture; 9,296 in labor not agricultural; 2,033 in sea and river navigation; 556 in law, medicine, and divinity; 881 in other pursuits requiring education; 176 in government civil service; 774 in domestic service, and 269 in pursuits not classified.

13. From the preceding results, it is evident that agriculture is but a secondary branch of industry in this State, and that manufactures and trade are pre-eminent. In proportion to its population, indeed, Rhode Island ranks higher in manufactures than any other of the United States, Massachusetts perhaps excepted; and in the manufacture of cotton goods it has no rival, more than a full half of the capital invested in manufactures being employed in this branch. Besides its cotton manufacture, the State has also extensive manufactures of woolen goods, machinery, and jewelry, and many other profitable branches. From the earliest times it has been largely engaged in commerce, and much of its present prosperity is owing to its eminent success in foreign trade. Its domestic trade is also extensive, its requirements from the interior agricultural States being large; and for the successful prosecution thereof it is amply supplied with the means in its excellent harbors and its connections by railroad, steamboat, and telegraph.



VIEW IN RHODE ISLAND.

14. In 1850 Rhode Island contained 5,385 farms, in which were included 356,487 acres of improved and 197,451 unimproved lands, or a total of 553,938 acres. The area of the State is 835,840 acres, and hence a third of the surface is either waste or appropriated to other than agricultural purposes. The valuation of the farms amounted to $17,070,802, and of farming implements and machinery to $497,201.

15. The principal crops are Indian corn, oats, and potatoes. Wheat and buckwheat scarcely deserve any calculation, and the other cereals, rye and barley, are comparatively small crops. The following exhibits the totals (bushels) of each, in 1840 and 1850 comparatively.

	wheat,	rye,	oats,	Indian corn,	barley,	buckwheat,
1840	3,098	34,521	171,517	450,498	66,490	2,979
1850	49	26,409	215,232	539,201	18,875	1,245

—the potato crop in 1840 was 911,973, and in 1850 but 651,029 bushels. The hay crop of 1850 amounted to 74,418 tons.

16. The amount of livestock in the State at the two periods, 1840 and 1850, was comparatively as follows:

	horses, etc.	neat cattle,	sheep,	swine,
1840	8,024	36,891	90,146	30,659
1850	6,169	36,262	44,296	19,509

—the value of stock in 1850 having been $1,532,637, and the value of animals slaughtered during the year $667,486. The products of animals, in 1849–50, consisted of—cheese 316,508, butter 995,670, and wool 129,692 pounds. In 1840 the wool crop amounted to 183,830 pounds or about 32½ ounces per fleece; in 1850 the average was nearly 47 ounces.

17. The total value of the products of agriculture, in 1840, was $1,951,141, and in 1850 $2,168,332.

18. In 1850 this State contained 853 manufacturing establishments, in which was invested a capital of $12,923,176, and which gave employment to 12,837 males and 8,044 females. The cost of raw material consumed in the year was $13,183,889, and the cost of labor $5,008,656. The value of goods produced was $22,093,258. In 1810 the manufactured products of Rhode Island were valued at $3,017,762; in 1820 at $1,617,221 (returns imperfect); in 1830 at $3,585,105; in 1840 at $13,096,805, and in 1850 (as above) at $22,093,258. The value of goods made in families in 1840 was $51,180, and in 1850 $26,495.

19. The fisheries of Rhode Island are comparatively extensive, and have their seats chiefly at Bristol and Newport. In 1850 the shipping engaged in the whale fishery amounted to 5,829 tons, and in 1855 to 7,592 tons.

20. The direct foreign commerce of Rhode Island is now comparatively small; formerly it had a flourishing trade with the East Indies, and it has still an extensive foreign connection through Boston. Its exports direct to foreign countries, in 1849–50, amounted to $216,265, and in 1854–55 to $336,023, and the imports for the same years amounted to $258,303 and $536,387. The shipping cleared in the years named was 18,475 and 23,684 tons, and the shipping entered, 19,922 and 28,798 tons. The total shipping owned in the State amounted to 40,489 and 51,039 tons; and the shipping built amounted to 3,587 and 7,861 tons in the years respectively.

21. Rhode Island is well supplied with railroads which connect its principal towns, and afford outlets for its trade. Its two great lines, diverging from Providence, connect it with Boston and New York, and a third line with Worcester and the north. There is also a short line connecting Providence with Bristol, and which will be continued to Newport. The total length of all the railroads within the State is 104 miles, which gives about one mile to every 13 square miles of surface or to every 1,650 inhabitants. Steamboats run between the principal ports, and there is a daily line of steamers between Newport and New York, and another between Stonington and that metropolis, in connection with the New York, Providence and Boston Railroad.

22. In 1850 there were in this State 63 banks, and in 1855, 92 banks; and in the mean time their capital was increased from $11,645,492 to $18,682,802. Their liabilities, at the two periods, consisted of—circulation, $2,553,865 and $5,404,104; deposits, $1,488,586 and $2,914,596; and others, $784,333 and $2,550,088; and their assets of—loans and discounts, $15,492,547 and $26,385,458; specie, $297,661 and $385,767; and other, $1,427,507 and $2,924,062. There are 15 savings' institutions, in which 23,229 depositors had, in 1855, credits to the amount of $4,834,312.

23. Until the year 1842 the form of government was that ordained by the royal charter of 1663, which was originally one of the most liberal ever granted to an American colony. In that year a new constitution was framed and ratified by the people. Every male citizen of the United States resident in the State for the last past year and in the town or city for six months preceding an election, and owning real estate worth $134, or of the clear yearly

value of $7, may vote for all civil officers. No Narragansett Indian can vote. In all elections a majority of votes is necessary to a choice. Every elector is qualified to hold every office for which he may be qualified to vote.

24. The legislative power is vested in a general assembly consisting of a senate and house of representatives, both of which are renewed annually. Each town or city sends one member to the senate (now 32 in number), and the lieutenant-governor is also a member of that body, and the governor its president. The house consists of 72 members, elected on the basis of population; each town and city, however, is entitled to at least one member. The general assembly holds annually two sessions; one at Newport, on the first Tuesday of May, and the other on the last Monday of October—at South Kingston every two years, and at Bristol and East Greenwich alternately the intermediate years, and this last session adjourns every year to Providence.

25. The governor and lieutenant-governor are also elected annually, as are the several administrative officers. The secretary of state is by virtue of his office secretary of the senate.

26. The judiciary consists of one supreme court and such inferior courts as the legislature may establish. Chancery powers may be conferred on the supreme court, the judges of which are elected by the legislature in grand committee.

27. The institutions which are supported either in whole or in part by the State are the Butler Hospital for the Insane, the Reform School, and the State Prison, all at Providence. The deaf and dumb are sent to the American Asylum, at Hartford, Conn., and the blind to the Perkins Institution, at South Boston.

28. The total resources of the State treasury, for the years 1849–50 and 1854–55, amounted to $161,649 and $174,706, and the expenditures, for the same years, to $161,414 and $153,541. The income is chiefly derived from tax on banking and insurance companies, interest on public deposits, a small direct tax (in 1855, $18,455), etc. More than a third of the expenditures is applied to schools. The State has no public debt. In 1850 the valuation of taxable property was $77,758,974, and in 1855, $111,175,174.

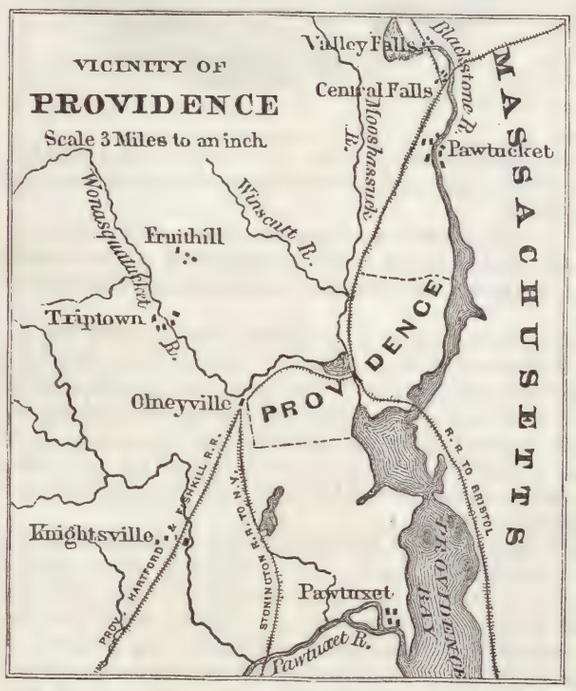
29. The educational condition of the State in 1850 is described in the census of that year as follows:

Classes of Schools.	Number.	Teachers.	Scholars.	Annual Income.
Primary and public schools	416	518	23,130	$100.451
Academies and private schools	46	75	1,601	32,748
Collegiate institutions	1	11	150	3,500

—making a total of 463 schools, 604 teachers, and 24,881 scholars, and an income of $136,729. The only college in the State is Brown University, at Providence, founded in 1764, and which, in 1855, had 225 students and a library of 34,000 volumes. In 1850 the number of persons over 20 years of age unable to read and write was 3,607, of which 3,340 were white and 267 colored persons, and 1,248 were natives and 2,359 foreigners.

30. The churches of Rhode Island, in 1850, numbered 228, with accommodation for 101,210 persons, and owning estate valued at $1,254,400. The most numerous denomination is the Baptist, which includes a third of the whole population, and the next in numerical order are the Episcopalian, Congregational, and Methodist denominations, to which another third, in about equal proportions, belongs. The Roman Catholics and Friends number about one each in every 20 inhabitants. Other denominations are numerically insignificant.

31. Providence, one of the capitals of the State, is situate at the head of navigation of the northwestern arm of Narragansett Bay, or Providence River, 34 miles from the ocean, in latitude 41° 49′ 26″ north, and longitude 71° 23′ 59″ west. The city is divided by the river, and the parts connected by bridges. The business of the city is alike commercial and manufacturing, and both branches of industry are pursued on a considerable scale, and many vessels are built in the port. Several whale-ships fit out at this port annually. The manufactures consist principally of cotton and woolen goods, machinery, hardware, etc., and in these about six or seven million dollars are employed. The coasting trade is large, and the city has a respectable inland commerce. Many public buildings are found in Providence, the principal of which are the State House, Brown University, and the Arcade, the latter a fine building used for mercantile purposes; and among its eleemosynary institutions the Butler Insane Hospital, Dexter's Asylum for the Poor, etc., are conspicuous. The State Prison is also located here. The churches count between 30 and 40 in all. The city has six wards, and is governed by a mayor, aldermen, and common council, elected annually. Providence was founded by Roger Williams in 1635. Next to Boston it is the most populous and wealthy city of New England. Population (in 1850) 41,513, and (in 1855) 47,785.



32. Newport, the other principal seat of government, is situate on Rhode Island, about 5 miles from the ocean, in latitude 41° 29′ 12″ north, and longitude 71° 18′ 28″ west. Its harbor is strongly fortified. It has considerable commerce, and is engaged in the whaling business to a small extent. The public buildings are the State House, the Redwood Atheneum, fifteen or sixteen churches, etc. This place, however, is more noted for its natural attractiveness than industrial peculiarities. Population 9,563.

33. The other towns are—in Bristol County, Barrington 795, Bristol 4,616, and Warren 3,103 inhabitants; in Kent County, Coventry 3,620, East Greenwich 2,358, West Greenwich 1,350, and Warwick 770; in Newport County, Jamestown 358, Little Compton 1,462, Middletown 830, Newport (as above), New Shoreham 1,262, Portsmouth 1,833, and Tiverton 4,699; in Providence County, Burrellville 3,538, Cranston 4,311, Cumberland 6,661, Foster 1,932, Gloucester 2,872, Johnston 2,937, North Providence 7,680, Scituate 4,582, and Smithfield 1,500; and in Washington County, Charleston 994, Exeter 1,634, Hopkinton 2,477, North Kingston 2,971, Richmond 1,784, South Kingston 3,807, and Westerly 2,763. More or less manufacturing is done in all these towns, and most of them have excellent railroad facilities.



NEWPORT, FROM BRENTON'S ISLAND.

34. Roger Williams was the first white settler within the present limits of Rhode Island. Expelled from Massachusetts for maintaining opinions for which the minds of men were not yet prepared, he sought refuge in the wilderness, and after habiting with the Indians for many weeks he descended the Pawtuxet River, and turning round Fox Point, slaked his thirst at a spring on the bank, and afterward erected his habitation near by. In grateful acknowledgment of "God's merciful providence to him in his distress" he called the place Providence.

35. In 1638, two years after the expulsion of Williams, William Coddington and 17 others, being persecuted for religious heresies (?) in Massachusetts, followed him to Providence. By his advice they purchased of the Indians the island of Aquetnec, now called Rhode Island, and removed thither. Coddington was chosen their chief magistrate. Pursuing the same policy which distinguished the settlers at Providence, numerous emigrants from the neighboring settlements came among them.

36. In 1643 Williams went to England, and in the following year obtained a patent for the united government of Providence, Newport, and Portsmouth, which was established in 1647, and continued in force until 1663, when Charles II. granted a new charter incorporating the colony of "Rhode Island and Providence Plantations."

37. Thenceforth the colony enjoyed prosperous tranquillity (excepting the disturbance of Sir Edmund Andros in 1686) until the Revolutionary War. Rhode Island was not represented in the convention which framed the constitution of the United States in 1787, and did not ratify the same until 1790. The charter granted by Charles II. in 1663 was the only constitution of the State until November, 1842, at which time the present constitution was adopted; but this was not accomplished until after much popular excitement and nearly a civil war.

STATE OF CONNECTICUT.



1. Connecticut is situated between latitudes 41° and 42° 2′ north, and longitudes 71° 46′ and 73° 46′ west; and is bounded on the north by Massachusetts, on the east by Rhode Island, on the south by Long Island Sound, and on the west by New York. The length of this State, east and west, is about 90 miles, and the breadth thereof from 60 to 70 miles. The area is stated at 4,674 square miles, or about 0.15 per cent. of the whole United States territory.

2. The shore-line of Connecticut stretches along Long Island Sound, and has a length of 104 miles, or including islands and all irregularities a length of 262 miles, or one mile of coast to every 17.84 square miles.

3. Long Island Sound is an extensive gulf or channel, 140 miles long and 24 miles wide in its broadest part. This sound is the common recipient of all the rivers of Connecticut. It is somewhat narrow at its Atlantic or eastern entrance, expands in the middle, but toward the west it again gradually contracts till it joins the harbor of New York by a narrow and crooked gut called the East River. It admits of a free navigation for the largest ships through its whole length, the dangerous rocks at Hell Gate, where the current becomes most contracted, having been removed. The northern shore of the Sound is deeply penetrated by numerous bays and creeks, affording excellent harbors, as New London, New Haven, Stonington, and Bridgeport, and these constitute so many starting points of travel and internal

trade between New York and Boston with the whole of New England and the northeast British provinces.

4. The interior of the country is greatly diversified by hills and valleys; and much of the surface is rugged, being traversed by several ranges of mountains, or rather hills. These are generally of a moderate size, and occur in quick succession, presenting a beautiful and constantly varying scenery.

5. All the principal ranges are continuations of the mountains of the States lying northward. The Housatonic range enters the State in the northwest, and extends in a southerly direction along the Housatonic River to the coast. This is rather a succession of groups and eminences, than a continuous range. The Green Mountain range, coming from Vermont and Massachusetts, passes through the State, and terminates at West Rock, a bluff 400 feet high, two miles northwest of New Haven. Between this and the Connecticut River is the Mount Tom range, which, coming from Massachusetts, also traverses this State and terminates at East Rock, 370 feet high, a little to the northeast of New Haven. The Blue Hills of Southington, a part of this range, have an elevation of 1,000 feet, and are said to be the highest land within the State. On the east side of the Connecticut is a fourth range, which crosses the river at Chatham, and terminates at East Haven.

6. The principal valleys of the State are the Housatonic in the west, the Connecticut in the center, and the Quinnebaug in the east. The valley of the Connecticut varies in breadth from 10 to 16 miles, and extends northward from Middletown, having in this State a length of about 30 miles. This is a rich agricultural district. The valleys of the Quinnebaug and Housatonic have also fertile soils, and produce fine crops. The scenery of these valleys, especially of the valley of the Connecticut, is magnificent, and the landscape varied and romantic. Many of the neighboring hills, sometimes in close proximity to the rivers, are cultivated like gardens to the very summit, while others are bald, or only support a few stunted trees and shrubs. The Farmington valley extends from New Haven north, through the State between the Green Mountains and the Mount Tom range, and is from three to five miles wide. In the hilly parts of the State the soils are of moderate fertility, and afford excellent pasturage.

7. Few of the streams are of much use to navigation, except in their lower courses. The principal is the Connecticut, which coming from the north and pursuing a pretty direct southerly course to Middletown, then suddenly turns to the southeast, and so flows to the Sound. There is a bar at its mouth, but vessels drawing ten feet of water can ascend to Middletown, and those drawing not more than eight feet to Hartford, 50 miles from the mouth of the river. The navigation of the upper course has been improved by locks and canals, which secure boat navigation to Barnet Falls. The Tunxis or Farmington is the principal tributary of the Connecticut in this State. The Housatonic rises in the west part of Massachusetts and enters this State near the northwest corner, after which it runs in a southerly or southeasterly course to the Sound; the first part of its course is broken by falls, and its entrance is barred against large vessels. It has, however, a sloop navigation for a distance of twelve miles. The Thames, formed by the junction of the Quinnebaug, the Shetucket, and the Yantic at Norwich, empties itself into the Sound at New London, after a navigable course of about fourteen miles. All these streams, and numerous smaller ones, are applicable for motive-power, and highly favorable to the fertility of the land through which they pass. Scarcely is there a single square mile in all the country but has a sparkling, never-failing rill to refresh the soil and make it productive.

8. Connecticut produces many of the economic minerals. Iron ore of excellent quality, and in great abundance, is found in various parts. The copper mines of Bristol and Plymouth are now profitably worked, and the ores exist from Bristol in a southerly direction toward Hampden, for a distance of more than thirty miles. The Plymouth mines are equally rich. The vein here runs from east to west, with a vertical dip, cutting the geological formation of the mountain at right angles. Copper also occurs at Granby, where it is found at the junction of the greenstone and new red sandstone formations. Fine marbles of different characters are abundant, and freestone, extensive quarries of which exist in the mountain regions, furnishes an excellent building material. At Portland are the celebrated quarries of Portland stone. Zinc, cobalt, and manganese also occur; and plumbago and other metals of minor importance have been discovered at various places. The mineral waters of Stafford have long been celebrated for their medicinal properties.

9. The soils of Connecticut are generally good, and suitable in parts to cereal agriculture, but as a whole they are best adapted to grass-growing. The valley of the Connecticut has a strong and fertile argillaceous loam, varying in different sections from a hard stiff clay to a light sandy loam, according to the prevalence of argillaceous or silicious formations. In the eastern part of the State the soil is strong, warm, fertile, and excellent for the grasses. The northwestern part is in some places comparatively cold and sterile. In the west, however, are many fertile districts. The climate and vegetation correspond nearly with those of Massachusetts, the climate differing only in being a little more temperate, and the season of growth in being earlier and somewhat more prolonged. The peach perfects its fruit in the southern portion of the State.

10. In 1850 the population of Connecticut numbered 370,792 souls, or 79.33 to every square mile, or 1.6 per cent. of the population of the United States. It was distributed as follows:

Counties.	Population.	County Seats.	Counties.	Population.	County Seats.	Counties.	Population.	County Seats.
Fairfield	50,775	Fairfield. Danbury.	Middlesex	27,216	Middletown. Haddam.	New London	51,821	N. London. Norwich.
Hartford	69,967	Hartford.	New Haven	65,588	New Haven.	Tolland	20,091	Tolland.
Litchfield	45,253	Litchfield.				Windsor	31,081	Brooklyn.

—and consisted of 73,448 families inhabiting 64,013 dwellings. Of the total population 363,099 (97.93 per cent.) were whites—179,884 males and 183,215 females, and 7,693 free colored—3,820 males and 3,873 females; and 332,525 (89.69 per cent.) were Americans, of whom 292,653 were natives of this State, 37,473 (10.11 per cent.) were foreign born, and 794 were of unascertained origin. The number of natives of Connecticut in other States of the Union was 154,891. In 1790 Connecticut contained 238,141 inhabitants; in 1800, 251,002; in 1810, 262,042; in 1820, 275,202; in 1830, 297,675; in 1840, 309,978, and in 1850 (as above) 370,792. In 1855 the population was estimated at 401,292.

11. The census of 1850 returned 97,010 free male persons over the age of 15 years as engaged in industrial pursuits. Of these 38,653 were engaged in commerce, trade, manufactures, mechanic arts, and mining; 31,881 in agriculture; 16,813 in labor not agricultural; 4,801 in sea and river navigation; 1,614 in law, medicine, and divinity; 2,162 in other pursuits requiring education; 189 in government civil service; 220 in domestic service, and 677 in pursuits not classified.

12. Connecticut is distinguished for the diversity of its industrial pursuits, and is equally an agricultural and manufacturing and commercial State, and is amply provided with the means of internal communication in its fine system of railroads, steam navigation routes, and lines of telegraph. It is one of those States in which no one occupation can claim pre-eminence, and in which industry is mainly carried on by small individual capitals. In the fisheries it ranks next to Massachusetts.

13. The State contains 2,991,360 acres of land. In 1850, 2,383,879 acres, or about four fifths of the whole surface, were laid off into 22,445 farms, and of this 1,768,178 acres or three fifths were under cultivation or improved lands. The cash valuation of farms was $72,726,422, and the value of farming implements and machinery was $1,892,541.

14. The principal crops are Indian corn, oats, rye, and potatoes. Buckwheat is also a good crop, but those of wheat and barley are insignificant. The total cereal crop in 1850 amounted to (Indian corn 1,935,043, oats 1,258,738, rye 600,893, buckwheat 229,297, wheat 41,762, and barley 19,099) 4,084,832 bushels, and the potato crop to 2,689,805 bushels. In 1840 the first was 4,114,938 and the latter 3,414,238 bushels. Tobacco is largely grown in the valley of the Connecticut, and in 1850 the crop amounted to 1,267,624 pounds; and the hay crop amounted to 516,131 tons.

15. The livestock in the State in 1840 and 1850 consisted of—

1850	horses, etc., 26,928	neat cattle,	212,675	sheep,	174,181	swine,	76,472
1840	" 34,650	"	238,650	"	403,462	"	131,961

—a statement showing a vast decrease in the intervening ten years. The stock of 1850 was valued at $7,467,490, and the value of animals slaughtered in 1849–50 was $2,202,266. The products of animals in the census year were—butter 6,498,119, cheese 5,363,277, and wool 497,454 pounds. In 1840 the wool crop was 889,870 pounds, but "per capita" more than ten ounces short of that of 1850.

16. The total value of the products of agriculture in 1840 was $11,201,618, and in 1850, $12,556,189.

17. According to official returns the value of the products of Connecticut manufactures has increased in the 40 years ending with 1850 from $5,858,682 to $45,110,102. The returns for 1820 are very imperfect; those of 1830 gave the value at $8,053,053, and those for 1840 at $19,923,638. In 1850 there were in the State 3,482 establishments, with an aggregate capital of $23,890,348, and in which were employed 31,287 males and 16,483 females. In the same year the raw material consumed was valued at $23,589,397, the cost of labor was $11,695,236, and the value of goods produced was $45,110,102. The capital invested in the manufacture of cotton was $4,219,100, in wool $3,773,950, and in iron $1,407,400, and the value of the manufactured products were respectively $4,257,522, $6,465,216, and $2,244,196. The value of goods manufactured in families in 1840 amounted to $226,162, and in 1850 to $192,252.



MANUFACTURING VILLAGE.

18. There is considerable mining in this State for iron, copper, and lead, and building stone of various kinds is extensively quarried, especially in the town of Portland, which produces the valuable stone of that name. The ascertained mineral wealth of several sections augurs well for the future.

19. Long Island Sound, with its bays and creeks, forms a famous fishing-ground, and the fisheries established here employ a large number of inhabitants. Immense oyster beds have been planted along the coast, and millions of this bi-valve, with lobster, etc., are furnished to the New York markets, or packed in tin and sent to the interior States. New London and Stonington are the chief centers of the foreign fisheries. In 1850 there were engaged in the whale fishery 11,483 tons, and in 1855, 22,724 tons; in the cod fishery, in the same years, 5,249 and 7,487 tons, and in the mackerel fishery 571 and 73 tons. Between $2,500,000 and and $3,000,000 capital is invested in this interest.

20. The direct foreign commerce of Connecticut is comparatively limited, New York and Boston affording greater facilities than the domestic ports. For the years 1849–50 and 1854–55 the exports were valued at $241,930 and $878,874, and the imports at $372,390 and $633,826. The shipping cleared amounted to 27,317 and 28,748 tons, and the shipping entered to 34,152 and 31,419 tons. The shipping owned in the State, in the years referred to, amounted to 113,085 and 137,180 tons, the greater portion of which was engaged in the coasting trade or fisheries; and the amount of shipping built was 4,819 and 14,067 tons. The principal ports are Stonington, New London, Middletown, New Haven, and Fairfield.

21. The domestic trade of the State as carried on by steamboat and railroad is very extensive, and a large commerce is also carried in transit between Boston and New York, and New York and New England generally. The directions of the Connecticut railroads are north and south and east and west, the first connecting with the New York steamboats on the Sound, and extending northward connect with the lines to Canada and the interior, and the latter forming with their exterior connections the great through lines between Boston and New York. The total length of railroad within the State in 1857 was 648 miles, and this had been built at a cost of $24,348,963.

22. In 1850 Connecticut had 41 banks and 2 branches, with an aggregate capital amounting to $9,907,503, and in 1855 it had 67 banks and 1 branch bank with $17,147,385. The liabil-

ities of these institutions at these periods respectively were—circulation, $5,253,884 and $6,871,102; deposits, $2,357,939 and $3,433,081; and other liabilities, $1,603,151 and $1,428,819; and assets—loans and discounts, $15,607,315 and $23,704,458; specie, $640,622 and $810,101, and other assets, $2,824,271 and $5,335,457.

23. The charter granted in 1662 by Charles II. constituted the basis of government until 1818. On the 5th October of that year the present State constitution was adopted. The right to vote is secured to every white male citizen of the United States, 21 years of age, resident of the State one year and of the town six months, and of good moral character. The general assembly is composed of a senate of 21 members, chosen in districts, and a house of representatives of 232 members, chosen in towns annually, and by a plurality of votes. Sessions are held annually at Hartford and New Haven alternately. The governor, lieutenant-governor, treasurer, controller, and secretary are chosen for the same term by a majority of votes. The judiciary consists of the supreme court of errors and the superior court, the first consisting of a chief and two associates, and the latter of six judges. Two terms of the supreme court and four of the superior court are held annually in each county. The judges hold their offices for eight years, and are chosen by the general assembly. Justices of the peace are chosen by the electors of towns. The institutions supported wholly or in part by the State are the Retreat for the Insane at Hartford, the Asylum for the Deaf and Dumb at the same place, the State Prison at Wethersfield, the State Reform School at West Meriden, and the State Normal School at New Britain.

24. The total resources of the State treasury, for the years ending 1st April, 1850 and 1855, amounted to $122,347 and $216,264; and the total expenditures for the same years amounted to $118,392 and $179,862 respectively. The chief sources of income are direct taxation, bank stock dividends, etc. Connecticut has no absolute public debt; but holds available property to the amount of $406,000, and has a productive school fund amounting to $2,049,953. The valuation of taxable property in the State in 1850 was $119,088,672, and in 1855, $203,739,831.

25. Connecticut ranks among the most enlightened States, and has established one of the most thorough and efficient systems of education extant, and which its large means enables it to support. In 1850 one out of every 4.34 inhabitants was attending school. The following table exhibits the general condition of the several classes of educational institutions for the same year:

Classes.	Numbers.	Teachers.	Scholars.	Income.
Primary and public schools	1,656	1,787	71,269	$231,220
Academies and private schools	202	329	6,996	79,003
Universities and colleges	4	56	738	53,639

—making a total of 1,862 schools, 2,172 teachers, 79,003 scholars, and an annual income amounting to $363,862. The number of persons over 20 years of age unable to read and write was 5,306, and of these 4,739 were whites and 567 colored persons; and 1,293 were natives and 4,013 foreigners.

26. The principal collegiate institutions and professional schools in the State are enumerated in the annexed table:

Institutions.	Location.	Founded.	Professors.	Alumni.	Students.	Libraries.	Commencement.
Yale College	New Haven	1700	23	6,400	473	63,000	Last Thurs. in July.
Trinity College	Hartford	1824	13	506	79	15,000	1st Thurs. in July.
Wesleyan University	Middletown	1831	7	501	117	13,000	1st Wed. in Aug.
Theological Department	Yale College	1822	4	650	24	1,000	Last Thurs. in July.
Theological Institute of Conn.	East Windsor	1834	3	151	17	5,000	——
Law School	Yale College	1820	2	—	25	—	Last Thurs. in July.
Medical Institution	Yale College	1813	6	689	46	—	September.

—there is also a scientific school attached to Yale College.

27. In 1850 Connecticut had a total of 734 churches, with accommodations for 307,299 persons, and owning property to the value of $3,555,194. The most numerous denomination is the Congregational, to which about a third of the whole population is attached; and then the Methodist, Baptist, and Episcopalian, each including about a sixth. The Roman Catholic ranks next in numbers, and after it the Universalist and Presbyterian; and lastly the Friends and Unitarians, etc. The Jews have two synagogues.

28. Connecticut contains six cities, twelve boroughs, and a large number of flourishing villages. The cities with their population at the periods stated are as follows:

Cities.	1810.	1820.	1830.	1840.	1850.
Hartford	3,955	4,726	7,076	9,468	13,555
New Haven	5,772	7,147	10,678	12,960	20,345
Middletown	2,014	2,618	2,965	3,511	4,211
New London	3,238	3,330	4,356	5,516	8,991
Norwich	—	—	5,161	7,239	10,265
Bridgeport	—	—	—	4,570	7,560

—Hartford and New Haven are the seats of government alternately.

29. Hartford, on the right bank and 50 miles from the mouth of the Connecticut River, and at the head of steam navigation thereof, stands on rising ground and is a regularly laid out city. Latitude 41° 45′ 59″, and longitude 72° 40′ 45″. The principal public buildings are the State House, City Hall, Custom House, Trinity College, the American Asylum, the Retreat for the Insane, and the Atheneum. Several of the churches, of which there are twenty-four, are handsome buildings, and besides Trinity College there are numerous other excellent schools. The city is the center of the State system of railroads, and carries on a large trade. Its manufactures consist principally of machinery, fire-arms, boots and shoes, etc., and the city is also celebrated for its extensive book trade. The American Asylum for the Deaf and Dumb was the first established, and is still one of the most flourishing and important asylums of the kind in the United States. The Retreat for the Insane is also a very important institution, and is resorted to by patients from all the New England States.

30. New Haven stands at the head of New Haven Bay, 4 miles from Long Island Sound, and in latitude 41° 18′, and longitude 72° 55′—36 miles by railroad south-southwest from Hartford. It is a pleasantly situated city, with wide streets, which are generally bordered by stately elms. The central square forms a sort of public park, and is said to be one of the finest public grounds in the Union. In this square are three fine churches, the State House, and the chief part of the buildings of Yale College, an institution ranking among colleges second only to Harvard University. Besides these the city contains several scientific and literary institutions, libraries, etc., and numerous academies and schools. Silliman's American Journal of Science is published at New Haven. Its churches, of which there are twenty-two, are handsome structures, and it has two cemeteries, in which several eminent Americans are interred. The public buildings are mostly of brick. New Haven is the chief commercial city of the State, and has an extensive domestic as well as foreign trade, and is largely engaged in the fisheries. The harbor is spacious but shallow and is gradually filling up. Carriages and clocks are the principal products of the New Haven factories, but there are also considerable manufactories for hardware and cutlery, woolen goods, leather, etc. The railroads centering here afford great facilities for communication, and a daily line of steamers plies to and from New York.



OBSERVATORY, YALE COLLEGE—LAT. 41° 18′ 28″ N., LONG. 72° 55′ 24″ W.

31. Middletown is situated on the right bank of the Connecticut 14 miles south of Hartford. It is built on a gently rising site, the main street running parallel to the river and the other streets at right angles with it. It is the seat of the Wesleyan University, and otherwise contains several handsome public buildings. Its manufactures are considerable, and it has an extensive coasting trade. In the vicinity are valuable mines of argentiferous lead, and inexhaustible quarries of feldspar in much request for the manufacture of porcelain. A branch railroad connects the city with the New Haven and Hartford line, and New York and Boston Central Railroad when completed will connect it directly with New Haven and New York, on the one hand, and Providence and Boston on the other.

32. New London, on the right bank of Thames River, 3 miles above Long Island Sound and 45 miles southeast from Hartford, is the chief port for the coasting and whaling trade of Connecticut. The harbor is deep and the most complete in the State. The shore-line of railroads passes through this city connecting it with New York and Boston, and railroads also connect it with Worcester and Palmer in Massachusetts. Steamboats ply daily to and from New York.

33. Norwich, at the junction of the Quinnebaug and Yantic, 13 miles above New London, occupies a very picturesque site, and is an important commercial and manufacturing town. The rivers afford great water-power. Seven miles below the city is Allyn's Point, a noted steamboat station, reached by a railroad, and at Norwich connecting with the roads to Worcester, etc., northward. The celebrated Yantic Falls are in the vicinity.

34. Bridgeport, on the shore-line of railroad and the southern terminus of the Housatonic Railroad, is a thriving city, 78 miles southwest from Hartford and 56 miles east from New York. The harbor, formed by an arm of Long Island Sound, is eligible for steamboats and coasting vessels. It is a place of considerable manufactures, and has a wide commercial connection.

35. The boroughs are—Danbury (population 5,964), near the western border of the State, and at the northern end of the Danbury and Norwalk Railroad; Essex (population 950), on the Connecticut, 7 miles from its mouth; Guilford (population 2,653), on the New Haven and New London Railroad, 16 miles east New Haven, with a good harbor frequented by coasting and fishing vessels and resorted to in the season for sea-bathing; Litchfield (population 3,953), a manufacturing town 28 miles west Hartford; New Britain (population 3,029), 10 miles southwest Hartford, the seat of the State Normal School, and noted for its brassware and cutlery; Newtown (population 3,338), on the Housatonic; Norwalk (population 4,651), on Norwalk River, which has 6 feet of water, and the New York and New Haven Railroad, which is here joined by the Danbury and Norwalk Railroad; Southport (population 1,250), on the New York and New Haven Railroad, 24 miles west New Haven and on an inlet of Long Island Sound admitting vessels of 100 tons; Stamford (population 5,000), on the same railroad 16 miles farther west, with a harbor admitting vessels of 8 feet draft; Stonington (population 5,431), on Long Island Sound and on the shore-line of railroads near the southeast extremity of the State, with one of the best harbors on the Sound, and connected also with New York by a daily line of steamboats, run in connection with the railroads to Providence and Boston; Waterbury (population 5,137), a busy manufacturing town on the Naugatuck, and at the crossing of the Naugatuck and the Hartford, Providence and Fishkill railroads, 33 miles west-by-south Hartford; and Willimantic, also a thriving town, on the river of the same name and on the Hartford, Providence and Fishkill Railroad, where it is crossed by the New London, Willimantic and Palmer Railroad, 31 miles east Hartford. These, and also many of the villages, of the State, are engaged to a greater or less degree in manufactures; several, as already stated, are also largely engaged in the coasting trade and fisheries, and with few exceptions their railroad facilities are ample.

36. The territory now constituting the State of Connecticut originally contained two colonies, viz., the colony of Connecticut and the colony of New Haven.

37. The old patent of Connecticut colony was granted March 19, 1631, by Robert, Earl of Warwick, President of the Council of Plymouth, to Lord Say and Seal, Lord Brook, and others. The Dutch, desiring to anticipate the English colonists, erected a fort at Hartford, in June, 1633; but in September following the company from Plymouth arrived, and effectually defended their selections. The other early settlements were at Windsor, October, 1633, and at Wethersfield and Saybrook, in the autumn of 1635.

38. The New Haven colony, consisting of Governor Eaton, Rev. John Davenport and

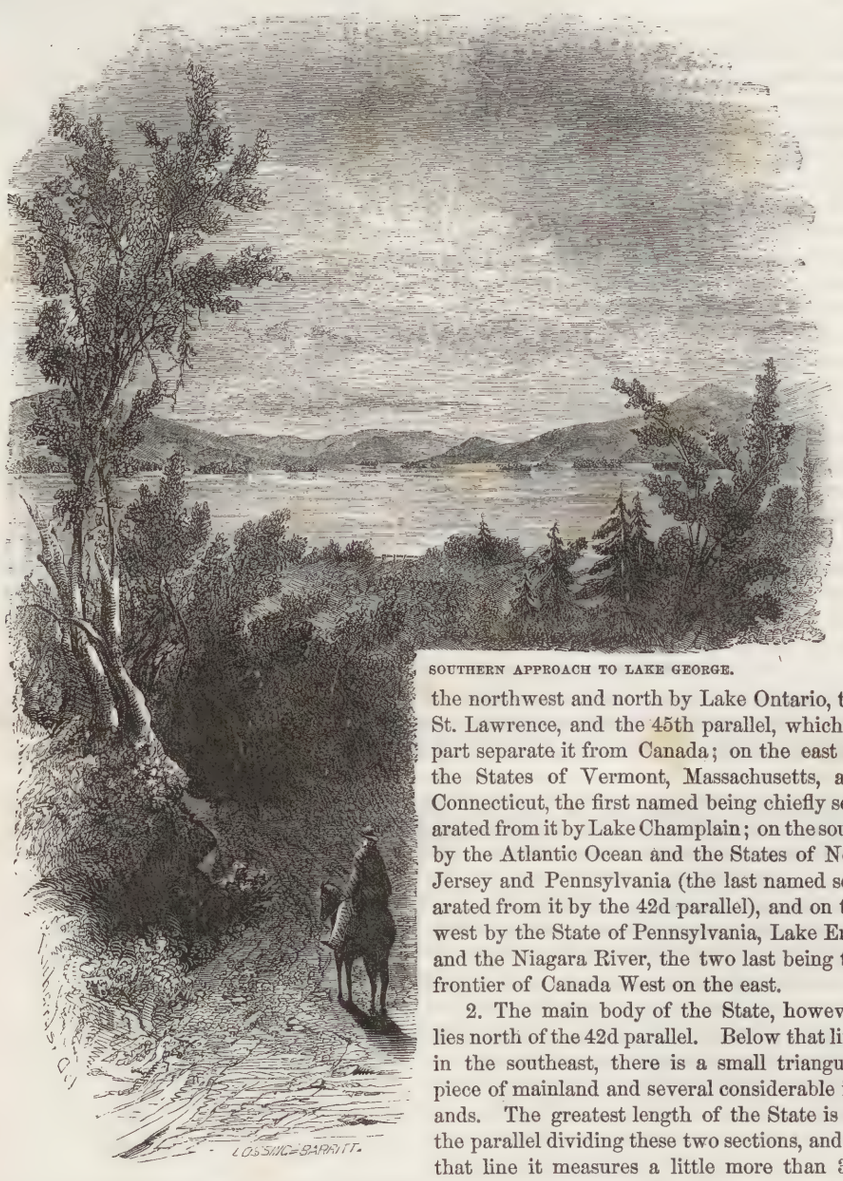
others, arrived at Boston in July, 1637; but the next year removed, and on April 15, 1638, commenced the settlement of New Haven.

39. In 1662, Charles II. granted a charter for the union of the colonies, which union was not perfected until 1665, but thenceforth continued until October 31, 1687, when Sir Edmund Andros assumed the government, annexing this to the other colonies of New England, and thus held it until May 9, 1689. After resuming its former government, according to the charter, Connecticut was principally engaged in the administration of its own affairs, repelling incursions of Indians, etc., until the wars between Great Britain and France, in which, in common with the other colonies, it was compelled to engage. In bringing about the Revolutionary war, Connecticut was among the foremost of the colonies, and during its continuance furnished in proportion to its population very large supplies of means.

40. The State ratified the federal constitution January 9, 1788.

STATE OF NEW YORK.

1. New York, the most populous and commercial of the United States, is situated between latitudes 40° 30′ and 45° north, and longitudes 71° 54′ and 79° 57′ west; and is bounded on



SOUTHERN APPROACH TO LAKE GEORGE.

the northwest and north by Lake Ontario, the St. Lawrence, and the 45th parallel, which in part separate it from Canada; on the east by the States of Vermont, Massachusetts, and Connecticut, the first named being chiefly separated from it by Lake Champlain; on the south by the Atlantic Ocean and the States of New Jersey and Pennsylvania (the last named separated from it by the 42d parallel), and on the west by the State of Pennsylvania, Lake Erie, and the Niagara River, the two last being the frontier of Canada West on the east.

2. The main body of the State, however, lies north of the 42d parallel. Below that line, in the southeast, there is a small triangular piece of mainland and several considerable islands. The greatest length of the State is on the parallel dividing these two sections, and on that line it measures a little more than 300 miles, and its greatest extent, north and south, is on the meridian of New York city, which measures somewhat less than 300 miles. In its western portion it gradually narrows, being in that direction encroached upon by the St. Lawrence and the lakes, the shores of which trend from the southwest northeastwardly. Including the islands, the area of the State is computed at 47,000* square miles. The shore-line of the ocean, including bays, islands, and all irregularities, is estimated at 980 miles. No part of the continental line is exposed to the sea. The whole northwest border is traced by the lakes and the St. Lawrence.

3. The great body of the State forms a portion of the elevated table-land of the United States, broken in some places by mountain ranges, and contains some remarkable depressions, which form the basins of lakes and channels of rivers. The loftiest part of this table-land occurs in the western part of the southern section, where Lake Chautauque is from 1,800 to 2,000 feet above the sea, and although it is but nine miles from Lake Erie, it discharges its waters by the Alleghany River.

4. In the eastern section the Taconic Mountains lie on the border of the State from Lake Champlain southward to Putnam County, at which point their course, diverging to the southwest, crosses the Hudson at West Point, and is continued thence into New Jersey and Pennsylvania. This range divides the waters of the Hudson and Housatonic.

5. The northern section is traversed by six several ranges of mountains, and these, with their offshoots, cover a large portion of the country. The Palmerstown range runs through the tongue of land which separates lakes George and Champlain, and terminates at Ticonderoga. The Kayaderosseras or Lucerne range runs along the west side of Lake George, and is broken through by the Hudson River. The Clinton range extends from Montgomery County northeast to Point Trembleau, on Lake Champlain. It is the largest range north of the Mohawk, and at its most elevated portion there are numerous distinct peaks forming the Adirondack group, and the range itself is the dividing line between the waters of the St. Lawrence and Mohawk. Au Sable or the Peru range commences in Montgomery County, and running parallel with the Clinton range, has a greater general elevation than the preceding. The Chateaugay range is the largest and highest chain in the State; it commences on the line of the Kaätsbergs, has an elevation of 2,000 feet, and terminates upon the Canada plains. The St. Lawrence range, commencing 10 or 12 miles north of this range, and trending along the slope of the St. Lawrence valley, is of less extent, and is divided into several portions by the St. Regis, Grasse, and other rivers flowing to the St. Lawrence. This section of the State has also two minor ranges: the highlands of Black River and the Hassencleaver Mountains.

6. The southern section may be divided into two portions—the eastern and the western. In the eastern portion there are three distinct ranges—the Highlands of the Hudson, the Shawangunk Mountains, skirting the valley of the Rondout, and the Kaätsbergs or Catskill Mountains. The western division of this section rises gradually to successive terraces from the shores of Lake Ontario till it attains its greatest elevation in the southern tier of counties. The first of the terraces composing this ascent extends from the Genesee near Rochester to Niagara Falls, and is from 6 to 10 miles in width. The second terrace extends from this ridge to the falls of the Genesee River, where there is another abrupt acclivity, of nearly 300 feet. This surmounted, the ascent is gradual to the summit-level, from 1,800 to 2,000 feet elevation. These terraces are each characterized by a difference of soil and of forest growths.

7. The principal culminations, with their elevation in feet above the sea-level are—in the Adirondack group, Mt. Marcy, 5,467; Mt. M'Intyre, 5,183; Mt. M'Martin, 5,022; Dial Mountain, 4,907; and Mt. Seward, 3,988—in the Au Sable range, Whiteface, 4,855—in the Kaätsbergs, Round Top, 3,804; High Peak, 3,718; and Pine Orchard, 3,027—in the Shawangunk, the highest peak is 1,866—in the Highlands of the Hudson, New Beacon, 1,685; Button Hill, 1,520; Old Beacon, 1,471; Breakneck, 1,187; and Anthony's Nose, 1,128, etc. Mt. Defiance, in Essex County, has an elevation of 753; the Palisades, in Rockland County, 550, and Fort Putnam 500; Harbor Hill, Long Island, 319; and Richmond Hill, Staten Island, 307 feet.



CATSKILL MOUNTAIN (KAATSBERG) HOUSE.

8. The most distinguishing feature of New York is perhaps its vast system of waterways, which bound it and intersect it in every direction. Its lakes are the common highways of an immense commerce. Numbers of these lie wholly within the State, but the great lakes, properly so called, lie on its borders, Ontario and Erie on the north and west, and Champlain on the northeast. Lake George or Horicon is wholly within this State, and discharges itself into Champlain by a descent of 150 feet. The northern portion of the State abounds with small lakes, and these number 200 at least. Some of these, among the Adirondacks, are

* According to United States Census, 1850. Burr's Atlas gives it at 28,297,142 acres or 44,214 square miles, and Gordon's Gazetteer of New York at 29,220,936 acres or 45,658 square miles.

NEW YORK, NEW JERSEY, PENNSYLVANIA & DELAWARE.

LONGITUDE WEST 77 FROM GREENWICH

32 31 30 79 78 76 75 74 73 72

45 44 43 42 41 40 39 38 37

CANADA EAST

CANADA WEST

LAKE HURON

GEORGIAN BAY

LAKE ONTARIO

LAKE ERIE

NEW YORK

PENNSYLVANIA

NEW JERSEY

DELAWARE

MARYLAND

VIRGINIA

VERMONT

NEW HAMPSHIRE

MASSACHUSETTS

CONNECTICUT

RHODE ISLAND

ATLANTIC OCEAN

GR. MANITOULIN ISLAND

C. Hurd

Cabots Head

Sydenham

Collingwood

LAKE SIMCOE

Barrie

Pentagore

R. Sangeen

R. Maitland

Goderich

New Market

Whitby

Port Hope

Colborne

Cobourg

Picton

Belleville

Bay of Quinte

Kingston

The Thousand Is.

TORONTO

Guelph

Berlin

Stratford

Hamilton

Woodstock

Brantford

London

St. Thomas

Simcoe

Queenston

Niagara Falls

Battle of Chippewa

R. Thames

Chatham

Dunkirk

Silver Creek

Long Pt.

Fort Burwell

Port Stanley

Erie

Girard

Wellsburg

Ashtabula

Painesville

Jefferson

Cleveland

Warren

Ravenna

Akron

Canfield

Canden

Wooster

New Philadelphia

Steubenville

Coshocton

Wheeling

Cambridge

Zanesville

Woodsfield

McConnelsville

Marietta

St. Marys

Parkersburg

Fairmount

Morgantown

Martinsville

Kingwood

Grafton

Hackensack

Belleville

Bloomfield

Orange

Newark

Jersey City

Elizabeth City

Staten Island

Richmond

Port Richmond

Tompkinsville

Ft. Hamilton

Flatbush

Flatlands

Gravesend

Coney I.

Sandy Hook

Keyport

THE ATLANTIC OCEAN

Great Kills

LOWER BAY

SANDY HOOK BAY

VICINITY OF NEW YORK CITY

SCALE OF MILES

Terre Bonne

Montreal

OTTAWA RIVER

Ottawa

Alexandria

Cornwall

St. Regis

Prescott

Brockville

RIV. ST. LAWRENCE

Ogdensburg

Canton

Madrid

Parishan

Chateaugay

Malone

Covington

Caughnawaga

St. John

Ronses Point

Lake St. Francis

Black R.

St. Regis R.

Sarana L.

Alexandria

Gouverneur

Oswegatchie R.

Grass R.

ADIRONDAC MOUNTNS

Champlain L.

Lake Champlain

CLINTON

FRANKLIN

Plattsburg

Dannemora

Keese

Burlington

Vergennes

Middlebury

Orwell

Whitehall

Lake Sanford

Lake Pleasant

Caldwell

Glens Falls

Sandy Hill

Fort Henry

Crown Point

Ticonderoga

Schroon L.

Lake George

Morehouse

Fulton Chain

Oneida L.

Oneida

Rome

Utica

Syracuse

Baldwinsville

Lyons

Palmyra

Saratoga Springs

Johnstown

Ballston

Clinton

Morris V.

Cherry Valley

Sharon Spr.

Schoharie

Troy

Lansingburg

Greenbush

Albany

Hudson

Catskill

Deposit

Sangerfield

Hancock

Great Bend

Athens

Troy

Towanda

Montrose

Stockport

Liberty

Kingston

Rondout

Ellenville

Poughkeepsie

Fishkill

Newburgh

Dover Plains

Middletown

Norwich

New London

New Haven

Peekskill

Carmel

Port Jervis

Milford

Stroudsburg

Delaware Gap

Whitehaven

Wilkesbarre

Wyoming

Pittston

Scranton

La Porte

Williamsport

Ralston

Tunkhannock

Carbondale

Honesdale

Damascus

Dundaff

Blossburg

Wellsboro

Coudersport

Smithport

Conneautville

Meadville

Tioga

Corning

Elmira

Owego

Binghamton

Lawrenceville

Painted Post

Hornellsville

Bath

Havana

Ithaca

Oxford

Greene

Bainbridge

Chenango Forks

Norwich

Unadilla

Otsego L.

Cooperstown

Middleburg

Schenectady

Trattsville

Delhi

Sharon Spr.

Schoharie

Troy

Lansingburg

Greenbush

Albany

Hudson

Catskill

Canaan

Pittsfield

Lenox

Stockbridge

Great Barrington

Sheffield

Canaan

Hudson

Red Hook

Rhinebeck

Dover Plains

Poughkeepsie

Fishkill

Newburgh

greatly elevated, as Avalanche Lake, 2,900 feet; Colden, 2,750 feet; and Racket, 1,731 feet above tide. The western portion of the State contains numerous lakes of considerable size. The largest and most important of these are Seneca, Cayuga, Oneida, Crooked, and Canandaigua lakes, all emptying into Lake Ontario. Chautauque Lake flows into the Alleghany.

9. The rivers of New York, in connection with a splendid system of canals, afford an immense stretch of inland navigation. The Hudson is the largest, and one of the most magnificent water-courses of North America. It is 320 miles long, having its sources in the Adirondack group. Navigation for large ships is open to Hudson, and for steamers to Troy. The Mohawk from the west, and the Hoosic from the east, are its principal tributaries; but there are also numerous other affluents from both sides. The Mohawk has extensive falls, and runs a course of about 135 miles, joining the Hudson at Waterford. The next important river of New York is the Oswego, the outlet of a long series of lakes and rivers, and which falls into Lake Ontario. The Alleghany, the recipient of the waters of Chautauque Lake and a constituent of the Ohio, and the Susquehanna and Delaware have also their sources within this State. The other principal rivers are the Niagara, the Genesee, the Black, the Chenango, the Chemung, the Oswegatchie, etc. The Niagara is the connecting strait between lakes Erie and Ontario, and is interrupted by the celebrated falls of the same name.

10. The sea-coast is almost wholly comprised in the shores of Long and Staten islands, which contain no eligible harbors. The bay of New York is the most magnificent harbor-water on the Atlantic sea-board. It extends nine miles below the city, and is from two to five miles wide. The Hudson River enters it from the north. On the lakes there are good harbors.

11. The largest islands are Long and Staten islands; the former projects into the Atlantic, opposite the southern shore of Connecticut, a distance of 140 miles; and Staten Island, at the mouth of New York harbor, is separated from Long Island by the bay and Narrows. It is 15 miles long, and about 8 miles broad. Manhattan or New York Island, which is occupied by the city of the latter name, is 13 miles long, with an average width of one mile and a half. The other islands of the bay are—Governor's, on which stands Fort Columbus and other strongholds; Bedloe's, also fortified; and Ellis's, the site of a naval arsenal.



RUINS OF TICONDEROGA.

12. The secondary formations of geologists, as well as the upper formations of the transition system, have no existence in this State; and all the formations, except the alluvial and diluvial, and the beds of tertiary on the St. Lawrence, are below the coal measures, the Kaätsbergs, which are the highest members of the transition system, being the layer immediately beneath. The prevalence of limestone in nearly all the formations is worthy of notice, affording as it does the basis rock best adapted to yield the materials for fertilizing the soil. The eastern and northeastern portions of the State are principally of the primary or unstratified formations, which contain extensive iron mines and mines of lead and plumbago, and the gneiss of this system furnishes a fine building material. Transition rocks are most prevalent in the southwestern portion of the State, and in this section gypsum, water-lime, and the salt springs of Salina occur. Old red sandstone is predominant in the Kaätsbergs. Fossils occur largely from the Hudson to the Niagara. Lead is found in immense quantities in St. Lawrence County, and less abundantly in the Shawangunk Mountains. Zinc and copper occur in various parts. Barytes and strontian, and also alum, are abundant in some parts. Serpentine and its kindred minerals, soapstone, talc, and magnesia, occur in the southeast. Mineral springs, the waters of which are medicinally valuable, exist in various districts.

13. The climate in this State is extremely various; in the south it is modified by the proximity of the ocean, and in the extreme west the influence of the great lakes perceptibly modifies its characteristics. It is only in the mountain regions of the north that any notable severity is observed. But though within the parallels which in Europe produces the fig, the olive, and the grape, its more severe climate admits only of the culture of the hardier plants and grains, and early frosts and backward springs are not uncommon throughout the whole State. The extreme summer heat is 97° Fahr., and the average maximum 92°, the mean annual range is 104°, and the mean annual temperature 46½°. The average time throughout the whole State, from the blooming of the apple to the first killing frost, is 174 days.

14. Holding a middle place between the north and south, nearly all the great features of the United States' flora are here produced. Immense forests still occupy the uncultivated regions north and west, consisting mainly of pine, oak, and beech, while the chestnut, hickory, and maple, with a host of other less numerous but not less valuable trees are scattered over its territory. The mountain sides and woods are clothed with an undergrowth of shrubs, as the whortleberry, rhododendron, and mountain laurel. In the open fields flourish hundreds of more herbaceous plants, among which will be found many that are rare and curious as well as of great beauty and utility.

15. Among the animals of this State the most conspicuous are those of the deer tribe. The carnivora are represented in the panther, wild cat, lynx, marten, wolverine, skunk, etc., and the rodents in the northern hare, rabbit, muskrat, squirrels of various species, the porcupine. The remains of the mastodon have been discovered in almost every section, and also teeth of the American elephant. Birds, reptiles, and insects abound, and the lakes, bays, and rivers teem with fish in great variety.

16. In 1850 New York contained 3,097,394 inhabitants or 65.9 to every square mile or 13.36 per cent. of the total population of the Union. This population was distributed among the counties as follows:

Counties.	Population.	County Seats.
Albany	93,279	Albany.
Alleghany	37,808	Angelica.
Broome	30,660	Binghamton.
Cattaraugus	33,950	Ellicottville.
Cayuga	55,458	Auburn.
Chautauque	50,493	Mayville.
Chemung	28,821	Elmira.
Chenango	40,311	Norwich.
Clinton	40,047	Plattsburg.
Columbia	43,073	Hudson.
Cortland	25,140	Cortlandville.
Delaware	39,834	Delhi.
Duchess	58,992	Poughkeepsie.
Erie	100,993	Buffalo.
Essex	31,148	Elizabethtown
Franklin	25,102	Malone.
Fulton	20,171	Johnstown.
Genesee	28,488	Batavia.
Greene	23,126	Catskill.
Hamilton	2,188	Lake Pleasant.
Herkimer	38,244	Herkimer.
Jefferson	68,153	Watertown.
King's	138,882	Brooklyn.
Lewis	24,564	Martinsburg.
Livingston	40,835	Geneseo.
Madison	43,072	Morrisville.
Monroe	87,650	Rochester.
Montgomery	31,992	Fonda.
New York	515,547	New York City
Niagara	42,276	Lockport.
Oneida	99,566	Utica.
Onondaga	85,890	Syracuse.
Ontario	43,929	Canandaigua.
Orange	57,145	Goshen.
Orleans	23,501	Albion.
Oswego	62,198	Oswego.
Otsego	48,638	Cooperstown.
Putnam	14,138	Carmel.
Queen's	36,833	N. Hempstead.
Rensselaer	73,363	Troy.
Richmond	15,061	Richmond.
Rockland	16,962	Clarkstown.
St. Lawrence	68,617	Canton.
Saratoga	45,646	Ballston.
Schenectady	20,054	Schenectady.
Schoharie	33,548	Schoharie.
Schuyler	(*new.*)	Watkins.
Seneca	25,441	Waterloo.
Steuben	63,771	Bath.
Suffolk	36,922	Riverhead.
Sullivan	25,088	Monticello.
Tioga	24,880	Owego.
Tompkins	38,746	Ithaca.
Ulster	59,384	Kingston.
Warren	17,199	Caldwell.
Washington	44,750	Sandy Hill.
Wayne	44,953	Lyons.
Westchester	58,263	White Plains.
Wyoming	31,981	Warsaw.
Yates	20,590	Penn Yan.

—and consisted of 566,869 families, inhabiting 473,936 dwellings. Of the total population, 3,048,325 (98.42 per cent.) were whites—1,544,489 males and 1,503,836 females, and 49,069 were free colored—23,452 males and 25,617 females; and 2,439,296 (78.75 per cent.) were American born, of which number 2,151,196 were born in this State, and 651,801 (21.04 per cent.) of foreign birth, the remainder (6,297) being of origin not ascertained. The number of natives of New York in other States of the Union was 547,218. In 1790 the State contained 340,120 inhabitants; in 1800, 586,756; in 1810, 959,049; in 1820, 1,372,812; in 1830, 1,913,006; in 1840, 2,428,921, and in 1850 (as above), 3,097,394. In 1855 the State census returned 3,466,212* inhabitants.

17. The occupations of 888,294 free male persons over 15 years of age, as given in the census of 1850, were as follows: 312,697 in commerce, trade, manufactures, mechanic arts, and mining; 313,980 in agriculture; 196,613 in labor not agricultural; 1,462 in the army; 23,243 in sea and river navigation; 14,258 in law, medicine, and divinity; 11,104 in other pursuits requiring education; 4,985 in government civil service; 6,324 in domestic services, and 3,628 in occupations not classified.

18. New York stands at the head of industrial States. In a few specialties it yields precedence to others, as in ship-building to Maine, in the mining of coal and iron to Pennsylvania, and in the manufacture of the textile fabrics to Massachusetts and Rhode Island; but for variety and aggregate value of industrial products it has no rival. Its foreign commerce is

* Of the population in 1855 the males numbered 1,727,650 and the females 1,738,562; the whites numbered 3,420,926, viz., 1,706,273 males and 1,714,653 females, and the colored population 45,286, viz., 21,377 males and 23,909 females. The number of voters was 652,322, viz., 516,745 natives and 135,577 naturalized foreigners. The number of aliens was 632,746. In this population there were—deaf and dumb, 1,422, viz., 785 males and 637 females; blind, 1,136, viz., 682 males and 454 females; insane, 2,742, viz., 1,215 males and 1,527 females; and idiotic, 1,812, viz., 1,002 males and 810 females.

Born in the United States, 2,528,444, viz., in New York, 2,222,321; in New England, 207,589; in New Jersey and Pennsylvania, 71,863; in the Southern States, 13,124; and in other States, 11,876; born at sea and unknown, 17,749; and born in foreign countries, 922,019. Of the foreigners, 469,753 were Irish, 218,997 German, 102,286 English, 47,842 Canadian, 27,523 Scotch, 18,366 French, 8,557 Welsh, 6,352 Prussian, 4,214 Dutch, 3,948 Swiss, etc.

Distributed into the counties, the population of each was as follows:

Albany	103,681	Cortland	24,575	Herkimer	38,566	Oneida	107,749	Richmond	21,389	Sullivan	29,487
Alleghany	42,910	Delaware	39,749	Jefferson	65,420	Onondaga	86,575	Rockland	19,511	Tioga	26,962
Broome	36,650	Duchess	60,635	King's	216,929	Ontario	42,672	St. Lawrence	74,977	Tompkins	31,516
Cattaraugus	39,530	Erie	132,331	Lewis	27,229	Orange	60,868	Saratoga	49,379	Ulster	67,936
Cayuga	53,571	Essex	28,339	Livingston	37,913	Orleans	28,435	Schenectady	19,572	Warren	19,669
Chautauque	53,380	Franklin	25,477	Madison	43,687	Oswego	69,398	Schoharie	33,519	Washington	44,105
Chemung	27,988	Fulton	23,284	Monroe	96,324	Otsego	49,735	Schuyler(*new*)	18,777	Wayne	46,760
Chenango	39,915	Genesee	31,934	Montgomery	30,804	Putnam	13,934	Seneca	25,358	Westchester	59,678
Clinton	42,482	Greene	31 137	New York	629,904	Queen's	46,266	Steuben	62,965	Wyoming	32,140
Columbia	44,391	Hamilton	2,543	Niagara	48,262	Rensselaer	79,234	Suffolk	40,906	Yates	19,512

The Census Report for 1855 contains also a vast fund of useful and interesting information apart and beyond the enumerations of that year. A few abstracts from this source will be appropriate in this connection, and serve to illustrate the progress of the Colony and State.

1. *Colonial Censuses* from 1698 to 1771:

Years.	White Persons. Males.	White Persons. Females.	Colored Persons. Males.	Colored Persons. Females.	Total Population.	Increase. Numerical for periods.	Increase. Annual rate p. c.
1698	8,143	7,754	1,085	1,085	18,067		
1703	9,322	9,085	1,174	1,084	20,665	2,598	2 87
1723	17,583	16,810	3,364	2,807	40,564	19,899	4.81
1731	24,856	18,205	4,866	2,897	50 824	10 260	3.16
1737	25,740	25,776	4,948	3,993	60,437	9,513	3.15
1746	26,860	25,622	4,857	4,250	61,589	1,152	0.21
1749	32,365	30,401	5,696	4,796	73,318	11,758	6.36
1756	43,261	39,981	7,570	5,978	96,790	23,442	4.57
1771	78,990	69,484	10,623	9,240	168 3 7	66,547	4.59

2. *Census of the Revolutionary Period.*—Partial returns still exist of censuses taken in 1776 and 1782, and also complete returns of a census taken in 1786. In the latter year the total population was 238,897, of which 229,996 were white persons—112,465 males and 107,531 females; 18,889 were colored persons—9,521 males and 9,368 females; and 12 were Indians who paid taxes.

3. *State Censuses.*—The first census taken under State authority was that of 1790, which, excluding the population of Clinton and Ontario counties, which made no returns, gave the population at 319,627, viz., 152,949 males and 145,749 females, and 20,935 slaves of both sexes. The State censuses as ordained under the constitutions of 1821 and 1826 are taken at intervals of ten years. The census of 1855 is the fourth of this series.

Years.	Whites.	Colored.	Total.	Increase. Numerical.	Increase. Proportional.
1825	1,576,459	39,999	1,616,458		
1835	2,130,169	44,348	2,174,517	558,059	34.5
1845	2,559.148	45.347	2,604,495	429,978	19.8
1855	3.420,926	45,286	3,466,212	861,717	33.1

4. *Indians in the State of New York*, 1845 and 1855:

Reservations.	Where Located.	Population. 1845.	Population. 1855.
Alleghany	South Valley, Cold Spring, Bucktooth, Great Valley, and Carrollton, *Cattaraugus County*	783	754
Buffalo	Lancaster, *Erie County*	446	broken up.)
Cattaraugus	Perrysburg, *Cattaraugus County*; Collins, *Erie County*, and Hanover, *Chautauque County*	922	1,179
Oneida	Lenox, *Madison County*, and Vernon, *Oneida County*	157	161
Onondaga	Fayette and Onondaga, *Onondaga County*	368	349
St. Regis	Bombay, *Franklin County*	290	413
Shinecook	Southampton, *Suffolk County*	(no sep. returns.)	160
Tonawanda	Pembroke and Alabama, *Genesee County*; Newstead, *Erie County*, and Royalton, *Niagara County*	503	602
Tuscarora	Lewiston, *Niagara County*	312	316
Total		3,753	3,934

—in 1845 the quantity of land under cultivation by the Indians was 13,867¼ acres, and in 1855, 14,197¼ acres.

world-wide, and in value more than that of all the other States of the Union together, and its internal commerce, facilitated by its vast systems of canals and railroads, reaching from the sea-board to the great lakes, and connecting in every direction with the systems of other States, extends to the farthest limits of the settled portions of North America. It is the great center, indeed, of production, distribution, and wealth, and the financial heart of the whole Union, giving life and health to the industry of the nation.

19. No coal measures that could be profitably worked are found in this State. It has, however, extensive deposits of iron, especially in the northeast and east, which are being rapidly developed. Gypsum is largely quarried in the western districts for agricultural purposes; while marble of excellent quality is quarried at Sing-Sing, and gneiss, granite, sandstone, and limestone in various parts. Salt is chiefly manufactured in Onondaga County, where the salines are among the most valuable in the world. Copper, zinc, manganese, etc., may also to some extent be classed among the mineral products of New York.

20. In 1850 the quantity of land included in farms amounted to 19,119,084 acres,* of which 12,408,964 acres were improved and 6,710,120 acres unimproved. This is a little less than three fifths of the whole surface, and about two fifths are under use. The total value is stated at $554,546,642, and the value of agricultural implements and machinery is stated at $22,084,926. The number of farms was 170,621, averaging 113 acres, and valued at $3,379 each.

21. The principal crops consist of oats, Indian corn, and wheat. Those of rye, barley, and buckwheat are comparatively small; but the potato crop, though only half as large in 1840, is larger than that of every other State. The following shows the amount of the cereal crops (bushels) in 1840 and 1850 comparatively:

1840.....wheat, 12,286,418..rye, 2,979,323..oats, 20,675,847..corn, 10,972,286..barley, 2,520,068...buckwheat, 2,287,885
1850..... " 13,121,498.. " 4,148,182.. " 26,552,814.. " 17,857,400.. " 3,585,059... " 3,183,955

—the potato crop in 1840 was 30,123,614, and in 1850 only 15,403,997 bushels; and the hay crop in the two years was 3,127,047 and 3,728,797 tons respectively. Hops are also a valuable crop, having been in 1850 no less than 2,536,299 pounds or about five sevenths the total produced in the Union. The value of market-garden products in 1850 was $912,047, and of orchard products $1,761,950, in both surpassing every other State; and maple sugar was produced to the amount of 10,357,484 pounds. Among other products of 1850 are also enumerated clover seed 88,222, and other grass seed 96,493 bushels, peas and beans 741,546 bushels, beeswax and honey 1,755,830 pounds, flax 940,577 pounds, tobacco 83,189 pounds, silk cocoons 1,774 pounds, wine 9,172 gallons, etc.

22. The comparative amounts of livestock owned in the State, according to the returns of 1840 and 1850, are exhibited as follows:

1840.....horses, asses and mules, 474,543.....neat cattle, 1,911,244.....sheep, 5,118,777.....swine, 1,900,065
1850..... " " " 447,977..... " 1,877,639..... " 3,453,241..... " 1,018,252

—the neat cattle, in 1850, consisted of 931,324 milch cows, 178,909 working oxen, and 767,406 other cattle. In 1850 the amount of butter made was 79,766,094 pounds, and of cheese 49,741,413 pounds; and the amount of wool produced in 1840 was 9,845,295, and in 1850, 10,071,301 pounds. The total value of livestock in the last-named year was $73,570,499; and the value of animals slaughtered in the year was $13,573,883.

23. The aggregate value of agricultural produce, etc., in the year 1850 was $117,019,115 or one eighth part of the whole produce of the Union, and one third more than that of all New England.

24. In 1850 New York contained 23,553 manufacturing establishments,† in which was invested an aggregate capital of $99,904,405, and which gave employment to 147,737 males and 51,612 females, whose wages or the cost of whose labor amounted in the year to 49,131,000. The value of raw material and fuel, etc., consumed was $134,655,674, and the value of the goods produced was $237,597,249. Among specified products, in 1850, are noted—cotton goods to the value of $3,591,989, woolen goods to $7,030,604, pig iron to $597,920, cast iron and castings to $5,921,980, wrought iron to $3,758,547, spirits, beer, etc., to $6,278,065, salt to $998,315, etc. In 1810 the total value of manufactures was $14,569,138; in 1840, $95,840,194; in 1850 as above, and in 1855 (State census), $317,428,331. The value of goods manufactured in families was, in 1840, $4,636,547, and in 1850, $1,280,333.

25. The fisheries of New York, though ample for domestic purposes, are in comparison with those of the New England States of inferior value. They are carried on chiefly in the neighboring ocean, and abundantly supply the markets of the metropolis. The whale fishery is carried on only to a small extent, and from Greenport, which, in 1855, employed in this industry shipping to the amount of 3,812 tons. In the same year Sag Harbor employed 182 tons of shipping in the cod fishery. Oysters and other shell-fish are abundant along the shores of Staten and Long islands; and the shad fisheries of the Hudson are very productive. According to the census of 1850 there were in the State 26 fisheries, using a capital of $482,100, employing 583 men, and producing annually $484,345.

26. The commerce and navigation and the shipping owned and built in this State, for the 10 years ending 30th June, 1855, are shown in the following table:

Years.	Commerce. Imports.	Commerce. Exports.	Navigation. Tonnage ent.	Navigation. Tonnage clear.	Tonnage owned. Registered.	Tonnage owned. Total.	Tonnage built 1854-5.
1846	$74,254,283	$36,935,413	—	—	—	—	—
1847	84,167,352	49,844,368	—	—	—	—	—
1848	94,525,141	53,351,157	—	—	—	—	—
1849	92,567,369	45,963,100	3,335,379	2,143,157	899,754	911,281	44,104
1850	111,123,524	52,712,789	2,277,720	2,149,096	458,903	944,349	58,342
1851	141,546,538	86,007,019	—	—	—	—	76,805
1852	182,329,306	87,484,456	2,900,062	2,477,720	585,871	1,160,097	72,072
1853	178,270,999	78,206,290	3,725,335	3,044,644	681,845	1,294,462	83,224
1854	195,427,933	122,534,646	3,188,354	2,953,471	769,940	1,415,039	117,166
1855	164,776,511	113,731,288	3,309,916	3,001,879	749,821	1,464,221	115,231

—in the last-named year the proportions of tonnage, etc., due to the sea-ports and lake-ports respectively was as follows:

Sea-ports	1,737,652	1,447,818	749,821	1,316,729	92,866
Lake-ports and ports of the St. Lawrence	1,572,264	1,554,061	—	147,492	22,365

—of the imports, in 1855, $133,055,311 were carried in American vessels, and $31,721,200 in foreign vessels; and of the exports, $96,414,808 were of domestic production, of which $73,579,375 were carried in American and $22,835,433 in foreign vessels, and $17,316,430 were of foreign production, of which $11,147,108 were carried in American and $6,169,322 in foreign vessels. Of the shipping entered in the same year 2,164,006 tons were American and 1,145,910 tons foreign, and of that cleared 1,861,682 tons were American and 1,140,197 tons foreign. Of the shipping owned in this State 246,933 (89,105 registered) tons were navigated by steam, and 196,912 (89,105 registered) tons belonged to sea-ports and 50,021 tons to lake-ports.



27. The following exhibits a statement of the amount of shipping entered at and cleared from each of the ports, in 1850 and 1855, comparatively, and also of the shipping owned and built in each:

Sea Ports.		Tonnage Entered. American.	Tonnage Entered. Foreign.	Tonnage Entered. Total.	Tonnage Cleared. American.	Tonnage Cleared. Foreign.	Tonnage Cleared. Total.	Shipping (tons). Owned.	Shipping (tons). Built.
New York	1850	734,431	410,900	1,145,331	596,812	385,666	982,478	885,867	55,525
	1855	1,377,788	858,169	1,735,907	1,091,244	354,510	1,445,754	1,288,235	92,697
Greenport	1850	504	—	504	811	—	811	8,556	—
	1855	476	—	476	655	—	655	10,229	—
Sag Harbor	1850	—	—	—	—	—	—	15,165	419
	1855	1,269	—	1,269	1,409	—	1,409	12,991	169
Cold Spring	1850	—	—	—	—	—	—	3,855	—
	1855	—	—	—	—	—	—	5,275	—
St. Lawrence River and Lake Ports.									
Sackett's Har.	1850	152,060	1,109	153,169	141,782	1,017	142,799	8,128	—
	1855	123,075	2,421	125,496	120,959	2,421	123,380	6,227	876
Genesee	1850	20,548	19,529	40,077	20,548	19,529	40,077	1,037	58
	1855	18,087	66,976	85,063	11,338	66,747	77,085	233	—
Oswego	1850	121,311	73,482	195,793	182,789	69,010	251,799	22,405	500
	1855	56,384	110,257	166,641	52,431	109,960	162,391	42,461	9,145
Niagara	1850	71,979	101,307	173,286	71,110	97,282	168,392	733	111
	1855	1,588	208,058	204,646	1,283	208,058	209,341	468	—
Buffalo	1850	16,741	91,596	108,337	19,751	87,905	107,656	39,679	1,730
	1855	39,953	112,587	152,540	44,448	111,492	156,940	76,953	11,237
Oswegatchie	1850	144,549	52,366	196,915	137,716	51,989	189,705	1,985	—
	1855	177,003	72,906	249,909	175,557	71,938	247,495	4,485	357
Champlain	1850	89,520	18,437	107,957	89,520	18,437	107,957	2,745	—
	1855	13,650	11,479	25,129	13,650	11,479	25,129	10,055	—
Cape Vincent	1850	149,647	6,744	156,351	150,718	6,704	157,422	2,497	—
	1855	354,783	203,057	557,840	348,708	203,592	552,300	6,609	749

—these figures, however, exhibit only that portion of the foreign trade conducted by water. There is also a large trade carried on with the British Possessions by land across the frontier, but of this no statement can be separately given, as on this point the published official returns are silent, and from a like omission it is impossible to give the separate values of the sea and

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* The following is a summary of the agricultural statistics for the whole State, as exhibited by the census of 1855:

Total land in farms	acres 26,758,183	Market gardens	acres 12,591 — products $1,138,682
Improved land	" 13,657,491	Orchard products: Apples	bushels 13,668,831
Unimproved land	" 13,100,692	Orchard products: Cider	barrels 213,639
Number of farms	231,740	Maple sugar	lbs. 4,935,815
Cash value of farms	$799,355,367	" molasses	galls. 85,091
" " of stock	103,776,053	Wine	" 18,182
" " of tools and implements	26,927,502	Honey	lbs. 2,557,876
Land plowed in 1854	acres 3,377,471	Wax	" 138,033
" in fallow	" 506,030	Silk cocoons	" 267
" in pasture	" 4,984,114	Neat cattle	total number 2,105,465
" in meadow	" 3,384,441	Under 1 year old	311,474
Hay produced .... 3,256,949 tons, and grass-seed	120,867 bushels.	Over 1 year old	577,887
Wheat (spring)	acres 194,316 — bush. 2,033,353	Working oxen	144,597
Wheat (winter)	" 601,141 — " 7,059,049	Milch cows	1,068,427
Oats	" 1,349,384 — " 27,015,296	Cattle killed for beef last year	225,338
Rye	" 281,715 — " 3,039,438	Butter	pounds 90,293,073
Barley	" 212,608 — " 3,563,540	Cheese	" 38,944,249
Buckwheat	" 293,233 — " 2,481,079	Milk sold	gallons 20,965,861
Indian corn	" 917,601 — " 19,290,691	Horses	number 579,715
Potatoes	" 220,576 — " 15,191,852	Mules	" 2,274
Peas	" 48,155 — " 705,967	Swine	" 1,069,792
Beans	" 16,917 — " 244,079	Sheep	" 3,217,024
Turnips	" 7,578 — " 985,522	Fleeces shorn	" 2,630,203
Flax	" 11,764 — seed " 87,093; lint lbs. 4,907,556	Wool	pounds 9,231,939
Hemp	" 3.5-8 — " 1,500	Poultry	value $1,076,598
Hops	" 9,482 — " 7,192,254	Eggs sold	" 1,360,673
Tobacco	" 7o6 — " 946,502	Miscellaneous crops and products	" 1,421,750
		Cloths of domestic manufacture (yards, viz.: Fulled cloth 198,203; Linen cloth)	105,086
		Flannel 379,922; Cotton and mixed	245,464
		Miscellaneous domestic manufactures	value $258,345

† The census of 1855 enumerates and classifies the manufactures as follows:

Classes of Manufactures.	Establishments. Total No.	Establishments. Water Power.	Establishments. Steam Power.	Capital Invested. In Real Estate.	Capital Invested. In Tools and Machinery.	Hands Employed.	Value of Raw Materials used.	Value of Manufact. Products.
1. Agricultural tools and implements	302..	65..	126....	$749,505..	$344,855....	2,474..	$1,235,929..	$3,120,409
2. Metallurgy and manufacture of metals and implements therefrom	4,783..	500..	302....	10,078,305..	6,426,378....	33,946..	21,806,828..	43,192,687
3. Manufactures of fibrous and textile substance	889..	103..	505....	5,294,629..	5,406,825....	19,669..	10,804,173..	19,643,028
4. Chemical processes, manufac. and compounds	1,351..	246..	115....	11,497,274..	7,591,263....	14,646..	35,692,784..	61,527,083
5. Calorifics: stoves, grates, lamps, etc.	57..	28..	3....	616,900..	201,963....	1,872..	949,135..	2,348,421
6. Steam-engines, boilers, locomotives, etc.	32..	20..	—....	1,412,300..	1,218,850....	4,348..	2,274,787..	4,331,806
7. Navigation and maritime implements	236..	14..	1....	2,070,150..	331,245....	4,786..	3,992,723..	8,268,106
8. Mathematical, philosophical, and optical instruments	49..	9..	2....	105,550..	125,440....	337..	159,080..	537,010
9. Civil engineering and architecture	554..	63..	97....	1,606,030..	443,511....	5,317..	1,057,808..	3,653,398
10. Land conveyance: coach, wagon, etc.	1,462..	99..	125....	2,205,432..	819,154....	8,262..	2,810,609..	6,977,848
11. Hydraulics and pneumatics: pumps, etc.	44..	5..	7....	99,960..	79,465....	511..	281,686..	691,675
12. Lever, screw, and other mechanical powers	12..	1..	1.. .	27,950..	13,100....	79..	41,121..	158,700
13. Grinding mills, mill gearing, etc.	1,518..	109..	1,172....	8,159,940..	2,173,853....	1,518..	42,856,563..	52,195,426
14. Lumber, including tools and machines for its manufacture	6,704..	732..	4,274....	9,951,174..	3,004,875....	21,514..	12,206,957..	24,208,041
15. Stone, clay, pottery, and glass manufactures	865..	90..	146....	3,895,690..	1,132,854....	12,313..	2,243,609..	9,494,217
16. Leather and manufactures therefrom	3,015..	142..	438....	4,489,182..	956,917....	19,342..	14,921,705..	27,870,163
17. Household furniture and machines and implements for domestic purposes	959..	67..	174....	1,977,279 .	859,994....	9,679..	3,795,357..	9,185,348
18. Arts, polite, fine, and ornamental	482..	89..	12....	2,426,717..	2,005,209....	6,981..	3,371,788..	8,331,161
19. Fire-arms and implements of war, manufacture of powder and shot	76..	5..	9....	172,145..	140,640....	593..	589,754..	992,068
20. Surgical, medical, and dental instruments and apparatus	36..	3..	—. ..	111,250..	19,000....	211..	73,549..	255,863
21. Wearing apparel, articles of the toilet, etc.	1,010..	22..	27....	2,504,873..	791,649....	38,195..	12,656,715..	22,045,229
22. Miscellaneous manufactures	497..	45..	15....	1,782,672..	1,112,531....	6,190..	5,369,269..	8,900,634
General total	24,833..	2,444..	7,551....	$71,130,407..	$35,219,570....	214,899..	$178,294,329..	$317,428,331

—of the grand total of "employed," there were 155,159 men and 37,771 women, and 15,736 boys and 6,233 girls under 18 years of age.

The following enumerates the trades, of each of which there were at least 50 establishments in the State: (*class* 1) agricultural implements 59; (*class* 2) blacksmitheries 1,921, furnaces 388, iron manufactories 78, machine shops 189, silver ware manufactories 143, tin and sheet-iron manufactories 480; (*class* 3) carding and cloth-dressing establishments 114, cotton fabrics 86, paper-mills 109, woolen cloth and yarn factories 184; (*class* 4) asheries 68, bakeries 196, breweries 128, chandleries and soap factories 111, distilleries 88, painting and glazing establishments 61, salt manufactories 193; (*class* 7) boat-building 74, ship-building 86; (*class* 9) house-building 88, sash and blind factories 200, stair-building establishments 212; (*class* 10) coach and wagon factories 1,397; (*class* 13) grist mills 1,476; (*class* 14) carpenters' shops 232, cheese-box manufactories 60, coopers' shops 666, lath manufactories 68, planing-mills 98, saw-mills 4,948, shingle factories 262, stave manufactories 71, turning shops 136; (*class* 15) brick-yards 269, lime works 101, marble works 138, plaster-mills 144, stone-cutting shops 60; (*class* 16) boot and shoe shops 1,467, harness, saddle, and trunk manufactories 595, tanneries 863; (*class* 17) broom manufactories 54, cabinet shops 616, chair factories 88; (*class* 18) book binderies 48, piano-forte manufactories 66, printing-offices 102; (*class* 19) gunsmiths' shops 65; (*class* 21) glove and mitten manufactories 69, hat and cap manufactories 124, milliners' shops 151, tailor shops 560; (*class* 22) butcher shops 87, tobacco and cigar factories 139, etc. In all 447 different kinds of occupation are separately enumerated under the 22 classes as above described.

The State censuses of 1825, 1835, and 1845 embraced statistics of a few of the leading manufactures, which in the

lake commerce. All that is exhibited in the returns is the aggregate value of the foreign commerce of each State, in which of course the commerce by land as well as water is included.

28. Situated in the midst of great manufacturing and agricultural districts, the interchange between which is constant and of great value, and having within itself all the materials of a vast trade, New York finds itself possessed of a magnificent transit and domestic commerce, and has well provided itself by the construction of canals, railroads, and telegraph lines to meet the exigencies of its favored position. In 1855 there were in operation within the State upward of 3,000 miles of railroad and nearly 1,000 miles of canal, and it is an ascertained fact that the first carry annually from 1,200 to 1,500 tons of freight, and the latter from 8,000 to 9,000 tons to every mile of their length. Hence the merchandise carried by railroads will, even at the lower figure, average 3,600,000 tons, and that carried by canals 8,000,000 tons. The commerce by coasting and the lake and river trade, in the years referred to, employed 701,051 (157,828 steam) tons of shipping; and an allowance of ten trips for each vessel in the year would give an aggregate of 7,010,510 tons. Thus:

Railroad freight	3,600,000 tons	valued at $80 =	$288,000,000
Canal freight	8,000,000 "	" at $60 =	$480,000,000
Coasting, lake, and river freight	7,000,000 "	" at $40 =	$280,000,000
Total	18,600,000 "	"	$1,048,000,000

—represents the gross movement; but on the supposition that these amounts have by transhipment been at least twice accounted for, the whole must be divided by two, and the remainder (9,300,000 tons and $524,000,000) will approximately represent the aggregate net quantity and value of the property carried from the producer to the consumer.

29. With the exception of the Delaware and Hudson Canal, all the canals of this State are public works, and comprise a main channel from Albany to Buffalo (362 miles), connecting the waters of the Hudson with those of Lake Erie, and from this lateral canals break away to the north and south:—*northward*, from Albany to Lake Champlain (78 miles), and from Utica to the navigable waters of Black River (95 miles), completing the waterways to the St. Lawrence, and from Syracuse to Oswego (38 miles), connecting the main line with Lake Ontario; and—*southward*, from Utica to Binghamton (97 miles), from Montezuma to Geneva (23 miles) on Seneca Lake, and from the foot of the lake to Elmira (23 miles), forming together a continuous navigation from Montezuma to Elmira (at which place a short canal—the Junction—connects the New York system with that of Pennsylvania), and from Rochester to Olean (106 miles), etc. The Delaware and Hudson Canal extends from Honesdale, Pa., to the Hudson River at Kingston, and has a length of 108 miles, of which 83 miles are in this State.

30. The railroads of New York have in all cases been constructed by chartered companies. Three principal lines traverse the State east and west, namely, the Northern from Rouse's Point on Lake Champlain to Ogdensburg on the St. Lawrence, 118 miles, the Central from Albany on the Hudson to Buffalo on Lake Erie, 298 miles, and the New York and Erie from Piermont on the Hudson to Dunkirk on Lake Erie, 445 miles. The two latter have numerous branches, and all the transverse roads connect with one or the other and extend beyond them north to the St. Lawrence and the lakes, and south to Pennsylvania and New Jersey. By its connection with the New Jersey lines, the New York and Erie Railroad has its main eastern terminus at Jersey City, opposite to the city of New York. On the east side of the Hudson River are the Hudson River Railroad and the New York and Harlem Railroad, connecting the metropolis with Albany (144 miles) and Troy (151 miles), and also roads continuous of these northward to Canada and eastward into New England and to Boston. The New York railroads, indeed, may be considered as the center of a grand national system connecting the railroads of other States and the British Provinces, and reaching over the whole extent of the Atlantic and interior States of the Union. The electric telegraph is extended along all the principal lines of railroad, and connects every city and town of importance.

31. In 1850 New York contained 198, and in 1855, 338 banks, with aggregate capital amounting to $48,618,762 and $85,589,590. In the same years the circulation amounted to $26,415,556 and $31,340,003; the deposits, to $50,774,193 and $88,852,395; dues to other banks, to $21,873,928 and $26,045,439; and other liabilities, to $2,984,727 and $3,615,502. The assets for the years respectively consisted of—loans and discounts, $107,132,389 and $192,161,111; stocks, $13,177,944 and $20,590,150; real estate, $3,321,589 and $5,857,537; other investments, $736,120 and $*nil*; due by other banks, $10,403,509 and $12,666,517; notes of other banks, $3,031,957 and $2,958,038; specie funds, $10,498,824 and $18,096,545; and specie, $10,045,330 and $10,910,330. In 1855, besides the capital employed by the chartered banks, an additional capital of $43,064,000 was employed by private bankers and money and exchange brokers. Of this sum, $41,500,000 was owned and used in the city of New York.

32. In accordance with the constitution of the State of New York, adopted in convention 9th Oct., 1856, every white male citizen who shall have been such for ten days, and who has resided in the State one year, in the county four months, and in the district 30 days next preceding an election, may vote at all elections in his place of residence. Colored citizens to enjoy the like privilege must have resided in the State three years, and be possessed of a freehold of $250, and have paid taxes thereon.

33. The legislature consists of a senate of 32 members, elected from single districts for two years, and an assembly of 128 members apportioned among the counties, elected for one year. Every white voter is eligible for election, but no person holding office of profit under the State or United States can sit as a member. The legislature meets at Albany on the first Tuesday of January annually.

34. The chief executive power is vested in a governor, who is elected for two years. No person can be governor who has not attained the age of 30 years, nor unless a citizen of the United States and a resident for the last five years in this State. The lieutenant-governor is *ex-officio* president of the senate, and on the death or disability of the governor succeeds to that office. His qualifications are necessarily the same as those of the governor.

35. The administrative officers of this State are the secretary of state, the controller, the treasurer, the attorney-general, etc., elected for two years, and three canal commissioners and three inspectors of State prisons elected for three years, one of each class annually.

36. The judiciary is composed of several courts provided for by the constitution. The court for the trial of impeachments consists of the members of the senate and judges of the supreme court. It meets only when specially called, and its judgments extend only to removal from office and disqualification. The court of appeals, the highest civil and criminal power, is composed of eight judges, of whom four are elected (one every second year) by the people at large, and four selected each year from the judges of the supreme court having the shortest time to serve. The court is presided over by the oldest of the elected judges, and holds four terms annually and district terms every two years. The supreme court has general jurisdiction in law and equity, and power to reverse judgments of county courts, etc. For the purposes of this court, the State is divided into eight districts, each of which elects four judges to serve eight years, one retiring every second year. One general term of this court is held in each county annually, and every county has at least two special (equity) terms and two circuit courts for the trial of issues of fact. The county and surrogate courts have local jurisdiction only; the judges and surrogates are elected for four years. Criminal jurisdiction is vested in courts of oyer and terminer and courts of sessions. New York and some other cities have special civil and criminal courts.

37. The principal institutions supported in whole or in part by the State are the State prisons at Auburn, Sing-Sing, and Clinton, in which the average number of persons confined has for the eight years ending with 1855 amounted to 1,700; the Western House of Refuge at Rochester, the State Lunatic Asylum at Utica, and the New York City Asylum, etc.; the Asylum for Idiots at Syracuse; the Deaf and Dumb and Blind asylums at New York; and numerous hospitals, infirmaries, and other charitable establishments. At West Point on the Hudson is situated the United States Military Academy for the education of officers.

38. The revenue of the general fund on which are charged the ordinary expenses of the government, amounted, for the year ending 30th September, 1850, to $881,241, and for 1855 to $1,684,100, and the expenditures, for the same years, to $826,720 and 1,755,904. The total resources of the treasury for 1855 (including $3,544,126 balance from last year) amounted to $14,957,205, and the total payments to $11,829,694. The general fund debt at the close of the fiscal year 1850 amounted to $6,359,693, and 1855 to 6,692,654, and the canal debt to $16,171,109 and $20,281,333. There is also a small contingent debt of $770,000. The property owned by the State consists of the funds devoted to education, which in 1855 amounted to $5,624,187, and the State canals, the value of which can only be estimated by the amount of their annual net income, which for the six years, 1849 to 1854 inclusive, was $2,330,049, equivalent to a capital of $38,834,157, at six per cent. interest. The taxable property in the State, in 1855, amounted to $1,402,849,304, which was assessed for 8.3 mills on a $1 valuation—and yielded taxes to the amount of $11,678,016, viz., State tax $1,753,561, county tax $7,947,503, and town tax $1,976,951. Of the total tax, New York city raised $5,844,772. In 1848 the valuation of property in the State amounted to $727,494,583.

39. Education in New York is provided for on a liberal scale, and the common schools are open to the children of all classes. In many instances the common schools are fully equal to the best conducted grammar schools and academies, and in the larger cities the courses embrace the classics, mathematics, drawing, music, and all the elements of a thorough training. In the city of New York a Free Academy is open to common school pupils after a successful examination. In 1850 the whole number of scholars returned as attending school in that year was one in every 4.3 of the total population; and the general statistics of schools of that year were as follows:

Classes.	Number.	Teachers.	Scholars.	Income.
Primary and public schools	11,580	13,965	675,321	$1,472,657
Academies and private schools	887	3,136	49,328	727,222
Collegiate institutions	18	174	2,673	148,258

—making a total of 12,485 schools, 17,275 teachers, and 717,222 scholars, and an annual income of $2,348,137.

The number of persons over 20 years of age unable to read and write was 98,722, of which number 91,293 were whites and 7,429 free colored persons, and 30,670 native born and 68,052 foreign born.



HAMILTON COLLEGE OBSERVATORY.

40. In 1855 the State superintendent of common schools returned 11,028 schools, and stated the number of children between the ages of 4 and 21 years of age to be 1,224,127, of which number 900,532 attended school during the year ending 30th June. The number returned as attending private schools was 53,764, and attending academies 38,734. The average attend-

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first-named year included only the number of establishments, but in the other two years the value of the manufactured products, etc. These returns, compared with those of 1855, are as follows:

Classes.	Number of Establishments.				Value of Products.		
	1825.	1835.	1845.	1855.	1835.	1845.	1855.
Grist mills	2,264	2,051	1,944	1,476	$20,140,435	$22,791,474	$51,531,358
Saw mills	5,195	6,945	7,406	4,946	6,881,055	7,577,154	14,655,103
Oil mills	121	71	87	27	275,574	1,695,025	1,316,627
Fulling mills	1,222	965	710	264	2,894,096	1,660,881	250,552
Carding machines	1,584	1,061	820		2,651,638	1,678,320	
Cotton factories	76	111	118	86	3,030,709	2,877,500	4,621,133
Woolen factories	189	234	345	184	3,433,192	4,281,257	3,392,207
Iron works	170	293	500	Reported so as not	4,319,949	8,402,586	Reported so as not
Trip hammers	164	148	156	to be comparable.	363,581	586,328	to be comparable.
Distilleries	1,129	337	221	88	3,098,042	4,222,134	8,681,061
Asheries	2,105	693	738	68	726,414	909,194	165,302
Glass factories	—	13	15	21	448,559	87,700	90,500
Rope factories	—	63	79	29	980,083	918,540	2,448,798
Chain cable factories	—	2	1	—	28,625	5,000	—
Oil-cloth factories	—	24	24	17	95,646	270,250	544,250
Dye and print works	—	15	18	16	2,465,600	2,086,986	195,624
Clover mills	—	69	115	10	109,025	124,567	20,430
Paper mills	—	70	82	109	685,784	702,505	2,813,147
Tanneries	—	412	1,414	863	5,598,626	6,585,006	15,642,383
Breweries	—	94	102	128	1,381,446	6,313,273	4,448,453

ance at the State Normal School at Albany is 250, and 1,803 had been attending academies at the expense of the State in expectation that they would become teachers. The aggregate expenditures in the year for school purposes had been $3,216,669, of which $2,128,263 was from the general school fund and $1,115,995 from local taxation. The number of volumes in the district libraries was 1,505,370.

41. The capital of the several funds appropriated to the purposes of education amounted, in 1855, to $6,740,662, and the annual revenue derived therefrom to $824,829, viz.: the Common School Fund $2,457,521, producing annually $488,161; the United States Deposit Fund $4,014,521, producing $282,684; and the Literature Fund $268,620, producing $53,984. Of these funds, what was exclusively the Common School Fund in 1855 may be stated as follows:

Productive capital of the Common School Fund	$2,457,521
Amount from United States Deposit Fund which, at 6 per cent., will produce $165,000, the sum annually appropriated therefrom for the support of common schools	2,750,000
Amount from United States Deposit Fund which, at 6 per cent., will produce $25,000, that being the sum reserved by the constitution to be added annually to the capital of the School Fund	416,667

—the annual interest on this sum at 6 per cent. is $337,451. The remainder of the income of the United States Deposit Fund is appropriated for the support of colleges, academies, the normal school, Indian schools, teachers' institutes, etc. The income of the Literature Fund must by the constitution be applied to the support of academies.

42. The principal collegiate and professional schools in the State in 1855 were as follows;

Institutions.	Location.	Founded.	Professors.	Students.	Libraries.	Commencement.
Columbia College	New York City	1754	6	167	24,000	Last Wed. in July.
Union College	Schenectady	1795	16	338	15,000	4th Wed. in July.
Hamilton College	Clinton	1812	11	158	10,500	3d Thurs. in July.
Hobart Free College	Geneva	1825	6	98	6,650	3d Thurs. in July.
Univer. of the City of New York	New York City	1831	13	80	4,000	Wed. bef. 4th July.
Genesee College	Lima	1834	6	82	5,000	1st Wed. in July.
St. John's College	Fordham	1840	15	162	12,300	15th July.
Madison University	Hamilton	1846	9	159	7,457	3d Wed. in Aug.
University of Rochester	Rochester	1850	8	137	5,200	2d Wed. in July.
Albany Law School	Albany	1851	2	162	State Lib.	—
Theol. Institute of Epis. Church	New York City	1817	5	58	12,000	—
Union Theol. (Presb.) Seminary	"	1836	5	106	18,000	—
Theological (Presb.) Seminary	Auburn	1821	4	30	6,000	—
Hamilton Theol. (Bapt.) Sem.	Hamilton	1820	3	262	7,500	—
Rochester Theol. (Bapt.) Sem.	Rochester	1850	3	50	5,500	—
Hartwick (Lutheran) Seminary	Hartwick	1816	2	52	1,250	—
Theol. (Assoc. Ref. Ch.) Seminary	Newburg	1836	1	143	3,200	—
College of Phys. and Surgeons	New York City	1807	6	219	—	—
Medical Faculty of University	"	1841	11	280	—	—
Medical Inst., Geneva College	Geneva	1836	6	12	—	—
Albany Medical College	Albany	1839	8	114	—	—
Buffalo Medical College	Buffalo	1850	6	38	—	—

—and besides the above there has been founded the People's College at Havana and the State Agricultural College at Rochester, neither of which is yet in a condition to receive students.

43. In 1850 there were in this State 4,169 churches, with accommodation for 1,915,179 persons, and owning property to the value of $21,219,207. The most numerous denominations are the Methodist, Presbyterian, and Baptist, and after these the Episcopalian, Dutch Reformed, Roman Catholic, and Congregational, and then the Universalist, Friends, and Lutheran. Other denominations are numerically small, and together will not count more than a tenth of the whole number.

44. New York contains thirteen cities, as follows:

Cities.	1790.	1800.	1810.	1820.	1825.	1830.	1835.	1840.	1845.	1850.	1855.
New York	33,131	60,489	96,373	123,706	166,086	197,112	268,089	312,710	371,223	515,547	629,810
Brooklyn*	2,143	3,034	5,200	8,105	11,749	17,014	27,854	42,622	72,769	130,757	205,250
Buffalo	—	—	1,508	2,095	5,141	8,668	10,715	18,213	29,773	42,261	74,214
Albany	3,498	5,289	10,762	12,630	15,971	24,209	28,109	33,721	42,139	50,763	57,333
Rochester	—	—	—	1,502	4,729	9,207	14,404	20,191	26,965	36,403	43,877
Troy	—	4,926	3,895	5,264	7,859	11,551	16,959	19,334	21,709	28,785	33,769
Syracuse	—	—	—	—	—	2,565	4,103	6,502	10,712	22,271	25,107
Utica	—	—	—	2,972	5,040	8,323	10,183	12,782	12,190	17,565	22,169
Oswego	—	—	—	992	1,182	2,703	4,902	4,665	6,048	12,205	15,816
Po'keepsie	2,529	3,246	4,669	5,726	5,935	7,222	8,529	10,006	11,791	13,944	12,768
Auburn	—	—	—	—	2,982	4,486	5,363	5,626	6,171	9,548	9,476
Schenectady	4,228	5,289	5,903	3,939	4,068	4,268	6,272	6,784	6,555	8,920	8,389
Hudson	2,584	3,664	4,048	5,310	5,004	5,392	5,531	5,672	5,657	6,286	6,720
Total	48,113	85,937	132,358	172,241	233,746	302,720	410,417	498,830	623,702	885,252	1,144,193

45. New York, the metropolitan city of the State and of the United States, is situated at the head of New York Bay, and on Manhattan Island, at the confluence of the Hudson River with the bay and harbor of New York and the strait called East River, which latter connects the bay with Long Island Sound. The island on which the city is built has an extreme length of 13½ miles and an average width of a mile and a half, with a maximum width of two and a half miles; and contains about 14,000 acres. It is separated from the mainland on the north by Harlem River, a navigable water-course eight miles long, connecting the Hudson and East rivers. Latitude (City Hall) 40° 42′ 40″ north, and longitude 74° 1′ 8″ west from Greenwich. The island, with which the city is co-extensive, was originally much diversified, and in its upper portion, where least populated, it still retains much of its original character. With the increase of population improvements have been made according to a uniform plan—in laying out avenues and streets, grading them, providing them with sewers, etc.



VIEW OF NEW YORK FROM WILLIAMSBURG.

46. The harbor, stretching southward of the city, is one of the most magnificent in the world, and occupies not only the inner bay, but also the East and Hudson rivers for several miles up. The bay is about eight miles long, and 25 miles in circuit, and in it lie Governor's, Bedloe's, and Ellis' islands, all strongly fortified. This bay, forming the inner harbor, has water enough to admit the largest vessels to its wharves, and excellent anchorage, in which the united navies of the world might ride in safety. It is approached from the sea in two directions—from the northeast by the Sound, already mentioned, and from the southeast at the point called Sandy Hook. The latter, about 18 miles distant, is the great ocean thoroughfare; it has a bar across it on which the water is only 21 feet at ebb and 27 at full tide; but within it attains a much greater depth, and widens suddenly out into the fine expanse of Raritan Bay, which, affording both complete shelter and good anchorage, is regarded as an outer harbor. Between the two harbors lies Staten Island, completely blocking up communication excepting at its west and east sides, along each of which there is a navigable channel. The first, leading along the coast of New Jersey, is not much frequented—the latter, formed by the near approach of Long and Staten islands, is the main entrance, and having a width nowhere exceeding two thirds of a mile, it is appropriately called the Narrows. The admirable facilities which this intrusion of the land affords for defending the inner harbor has not been overlooked: it is completely commanded by strong forts, two on each side, and even should an enemy obtain entrance, other equally formidable works on the islands in the bay have to be encountered. The sea defenses are completed by Fort Schuyler, on Throg's Neck, where the East River is entered from Long Island Sound.

47. The island on which New York stands narrows toward its south extremity, and finally terminates in a kind of parabolic curve. This curve incloses the original nucleus of the city, and is still its densest locality. Having been allowed to grow up as immediate convenience might dictate, it is irregularly built, and it is only at Houston Street, about two miles from the Battery, that the adoption of a regular plan becomes visible. Above this the streets and avenues, crossing each other at right angles, are spacious—the avenues, generally 100 feet wide, running north and south, and the streets, from 80 to 100 feet, running east and west, or between the rivers. Both avenues and streets are designated by numbers, as 1st Avenue and 1st Street, etc., except near the East River, where there are avenues A, B, C, and D. The as yet thickly built portion of the city does not extend beyond 50th Street, about four miles above the City Hall; but beyond this there are several suburban villages, and it is probable that within 20 years the island, in its whole length, will be one dense mass of houses. The main thoroughfare is Broadway, extending from the Battery to 25th Street; it is 80 feet wide, and with its public buildings, theaters, hotels, and splendid stores and dwellings presents at all times an imposing scene. The other streets particularly deserving of notice are the Bowery, on the east and nearly parallel with Broadway; Canal Street and Grand Street, crossing Broadway about a mile up; Wall Street, opening from the east into Broadway in its lower part, and containing some of the finest public edifices, and still better known as the center of stock and monetary operations; South Street, along East River, and West Street, along the Hudson, both occupied chiefly by shipping houses; Pearl, Pine, Cedar, and Broad streets, the principal localities for dry goods jobbing and importing houses; Nassau Street, noted for its publishing houses; Water and Front streets, occupied chiefly by wholesale groceries, etc. The squares and other open places are, perhaps, less numerous and attractive than might be desired, though the general spaciousness and directness of the streets may make such not so indispensable.

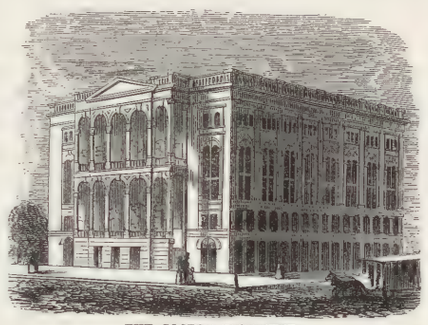


VIEW IN WALL STREET.

48. The public architecture in New York is of a very superior character, and the number of public buildings is being constantly increased. The City Hall, occupying a commanding position in the Park, is a very imposing structure of marble and freestone, and rising above the structure is a fine cupola, on the top of which a colossal statue of Justice has been placed. The extent of the building, 216 feet long by 105 feet wide, affords ample space for the numerous municipal offices and courts. The Merchants' Exchange, in Wall Street, is a massive granite building, surmounted by a dome 124 feet above the ground. The edifice is 200 feet long and from 144 to 171 feet wide, and 77 feet high to the top of the cornice; in front is a recessed portico of 18 Ionic columns, each a single solid block, 38 feet high, and weighing 43 tons, and among the numerous rooms is the Rotunda, 80 feet in diameter, and crowned by a dome, supported in part by eight Corinthian columns of Italian marble. The Custom House, at the head of Broad Street, is a splendid Doric structure of white marble modeled after the

* Including Williamsburg and Bushwick, which were incorporated with Brooklyn in 1854.

Parthenon at Athens. The present Post Office, formerly the Dutch Church, is a miserable building for such a purpose, but is to be replaced by one worthy of so large a city. The Halls of Justice, commonly called "the Tombs," are built in the Egyptian style. The building occupies the block surrounded by Centre, White, Elm, and Worth streets, and is used as a police court and house of detention. The City Penitentiary is located on Blackwell's Island, in the East River, and is a very extensive and imposing series of buildings. On the same island are—the Lunatic Asylum and Almshouse, buildings more remarkable for their magnitude than architectural pretensions. The new State Arsenal, on Fifth Avenue between 62d and 64th streets, is a massive Gothic structure, in the castellated style, surmounted by eight towers 69 feet high, four in front and one at each angle of the building. The churches number about three hundred, and many are costly and magnificent structures. Of these the Presbyterians, Episcopalians, and Methodists have each about 50, the Baptists 35, the Roman Catholics and Dutch Reformed each 25, and the Congregationalists and Jews each a dozen; and all the other sects have one or more places of worship.



THE COOPER INSTITUTE.

49. The educational establishments of New York are extremely numerous, and besides its excellent public schools, include several great collegiate and professional institutions. Among the principal are—Columbia College, the University, the College of Physicians and Surgeons, the University Medical College, the New York Medical College, the General Theological Seminary, etc., and numerous academies and high schools, public and private. The chief literary institutions and libraries are—the Historical Society, the Geographical and Statistical Society, the Law Institute, the Society Library, the Mercantile Association, the American Institute, the Lyceum, etc., the Astor Library, founded by the late J. J. Astor at a cost of $400,000, and the noble Institute recently founded by Peter Cooper, Esq. The hospitals, asylums, and benevolent institutions are both numerous and well-provided; and few cities are better supplied with places of amusement than is New York. The city is supplied with water by the Croton Aqueduct, a vast work completed in 1842 at a cost of nearly $15,000,000. The water is brought from a lake or pond, formed by damming up the Croton River, by a covered aqueduct 40 miles long, and capable of supplying daily 60,000,000 gallons of water.

50. The commerce of New York has, with occasional fluctuations, been steadily progressive. The returns for the past 25 years are as follows:

Years.	Ship. built. Tons.	Ship. owned. Tons.	Ship. enter. Tons.	Ship. clear. Tons.	Years.	Ship. built. Tons.	Ship. owned. Tons.	Ship. enter. Tons.	Ship. clear. Tons.
1830.....	12,079....	256,558....	314,715....	243,235	1845	26,621....	550,359....	579,218....	483,525
1835.....	17,368....	376,697....	464,464....	369,590	1850.....	55,525....	835,867....	1,145,331....	982,478
1840.....	13,357....	414,818....	527,594....	392,597	1855.....	92,697....	1,288,234....	1,735,907....	1,445,754

—of the shipping owned in 1855, that classed as registered amounted to 737,509 tons, that as enrolled to 538,161, and that as licensed (under 20 tons) to 12,563 tons. Of the registered shipping, 89,105, and of the enrolled shipping 107,692 tons represented the steam marine. The coasting and internal trade greatly surpass that with foreign countries; and besides the vast tonnage engaged in the foreign trade, there are generally about 2,000 coasting vessels lying in the harbor at the same time. The commercial intercourse with the interior and with the States westward is secured by the Hudson River and the very complete system of railroads and canals terminating on its borders; and no less than 11 lines of railroads diverge from New York, placing it in direct communication with all the more important trading stations of the Union. There are also "avenue railroads" through all the principal north and south thoroughfares of the city.

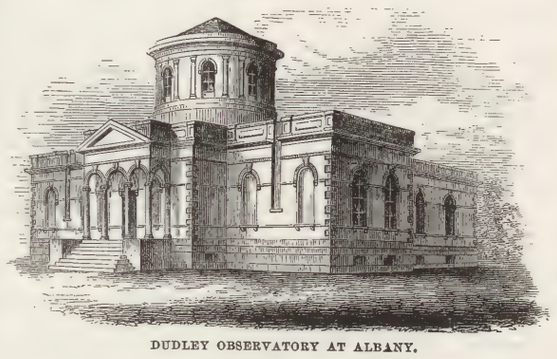
51. Though mainly distinguished for its vast commerce, New York is at the same time the greatest of American manufacturing cities. At the census of 1850 the persons employed in productive and manufacturing establishments numbered nearly one sixth of the entire population—the number of establishments was 3,387, the capital invested $34,232,822, and the manufactured products for the year were valued at $105,218,308. The principal establishments in the city are its iron founderies and machine shops, breweries, distilleries, sugar refineries, brass founderies, carriage factories, hardware works, etc., with manufactories of pianofortes, furniture, jewelry, and all the usual branches of useful and ornamental goods required for ordinary use or luxury in a wealthy metropolis. The publishing trade is also one of the great industries of the city. There are 56 banks in New York and 16 savings' institutions, and 104 fire, 15 marine, and 21 life insurance offices.

52. To estimate the resources of such a city is almost impossible; but a good idea of its wealth may be formed from the annual assessments for taxation. In 1856 the total value of taxable property was $513,939,279, and the amount of tax levied for the support of the city government and institutions was $7,075,425. The aggregate wealth of but few of the States of the Union amounts to a sum like this; and the amount taxed on the city annually is sufficient to pay all the ordinary expenses of the 31 State governments in bulk.

53. Brooklyn, the second city of the State in population, is located at the west end of Long Island and opposite New York, with which it connects by numerous steam ferries crossing the East River. The site is elevated, and fronting on the river the heights in one part are 70 feet above mean tide, affording a splendid view of the harbor and shipping. This city must be considered simply as an expansion of New York, and as one of its suburbs; but it is a handsome and well-governed place, and much more cleanly and better built than its metropolitan. The streets and avenues are wide and spacious, and in the outer districts there are several public squares, of which Washington Square or Fort Greene is the largest and most picturesque, occupying the highest part of the city. In architecture it is particularly rich: among its public buildings are its splendid City Hall (a marble building, 162 by 102 feet, and 75 feet high, consisting of three stories and a basement, and surmounted with a dome, the top of which is 150 feet above the ground), occupying a conspicuous site at the head of Fulton Street; its hundred churches, many of them exceedingly handsome and ornate; its literary and charitable institutions—among the first, the Atheneum, the City Library, the Lyceum, etc., and among the latter the City Hospital, the Orphan Asylum, the Marine Hospital, the Graham Institution, etc.; and its public schools, very numerous and probably better conducted than in any other city. Brooklyn is also a place of extensive manufacturing industry, commerce, and trade. Fulton Street, in old Brooklyn, and Grand Street, in the Eastern District, vie with many of the great thoroughfares of New York in the amount and variety of their merchant stores, and almost the whole lower part of the city, from the Atlantic Docks to Newtown Creek, is taken up with manufacturing establishments, ship-yards, etc., and many species of manufacture are conducted throughout the city limits. As a port it is subsidiary to that of New York, and, in fact, is a part of it, and is the great depôt for naval stores, grain, etc. The Atlantic Dock, at the south end of the city, is one of the largest in the Union, and is well provided with warehouses. Its surface covers 41 acres, and its depth is sufficient for the largest shipping. On the south side of Wallabout Bay, which makes up toward the north part of the city, is the United States Navy Yard, occupying about 40 acres, and inclosed on the land side by a stone wall. It is one of the chief naval depôts, and contains a vast amount of material and every facility in its ship-houses, workshops, and dry-docks for the purposes of its establishment. Near by is the United States Marine Barracks (a miserable wooden building), and on the opposite side of the bay, on elevated ground, the fine hospital edifice. Greenwood Cemetery is at the southern extremity of the city. Brooklyn was first settled in 1625, and was incorporated as a town in 1806 and as a city in 1834. In 1854 the city of Williamsburg and the town of Bushwick (now forming what is called the Eastern District) were annexed to it; and at the present day Brooklyn may be considered as one of the great cities of the world; in the United States the only cities having larger populations are New York, Philadelphia, and Baltimore.

54. Buffalo, capital of Erie County, and the principal city on Lake Erie, built near the eastern extremity of that water, is the great entrepôt between the lake country and the seaboard. The harbor, formed by Buffalo Creek, is capacious and well protected from storms by a breakwater, and sufficiently deep for the largest lake vessels, and every accommodation has been provided for its vast and increasing commerce. The shipping of the port in 1850 amounted to 39,679 tons, and in 1855 to 76,952 (of which 38,262 steam) tons. In the latter year the total entrances and clearances amounted to 3,333,232 tons, and the aggregate value of the imports and exports, foreign and coastwise, was $303,023,000, or an amount equal to two thirds of the whole foreign commerce of the United States! The principal materials of this commerce are the manufactures of the East and foreign countries, groceries, etc., and the products of the fields, forests, and mines of the West. The commerce of Buffalo is also augmented and greatly facilitated by the Erie Canal, here terminating, and the numerous railroads of which it is the center. The manufactures of the city are also extensive, chiefly consisting of the various manufactures of iron, machinery, cars, etc. But it is almost wholly to its eligible position that Buffalo owes its rapid growth and present eminence. It was laid out so late as 1801; it became a military post in 1812. In 1832 it was incorporated.

55. Albany, on the west bank of the Hudson, 145 miles north of New York city, is the political capital of the State and the eastern entrepôt of the vast commerce between the East and West. It is built on the slope of a hill and along the river flat, and approached from the east has a fine appearance. Here terminate the Erie and Champlain canals and numerous important railroads, and here also sloop navigation on the river. Its manufactures are large and diversified, including hardware, machinery, railroad cars, carriages, stoves, etc., and its breweries are the most extensive in the Union. Albany is also one of the greatest lumber markets in the world. The local trade of the city is active, and many of the warehouses and stores equal those of New York in the variety, value, and splendor of the merchandise exhibited. The city is not distinguished for regularity in its plan nor elegance in its domestic architecture; but it contains several spacious public places and many buildings which compare well with those of other large cities, among these may be named the Capitol, State House, City Hall, Geological Hall, etc. It has also a University, Observatory, Medical College, and numerous scientific and literary institutions; and many of its churches are worthy specimens of architecture.



DUDLEY OBSERVATORY AT ALBANY.

56. Troy, capital of Rensselaer County, is built on the east side of the Hudson, six miles above Albany, and at the head of steamboat navigation. Its commerce consists chiefly in the transhipment of merchandise to and from the canals, river, and railroads; but the city has also a large commerce of its own, furnished with material from its numerous workshops. As a manufacturing city, indeed, it is one of the first in the State, and produces large quantities of machinery, hardware, railroad cars, etc. It is also noted for its breweries and as an extensive lumber market. On the opposite side of the river is West Troy, also a manufacturing place, and which may be considered as a suburb of the city.

57. Rochester, capital of Monroe County, is built on both sides of the Genesee River, seven miles from its entrance into Lake Ontario, 229 miles west of Albany, and 68 miles east of Buffalo by the Central Railroad. At this point the Genesee Valley and the Erie canals form a junction, and also several important lines of railroad. It is the largest town on the great central avenue, and is equally noted for its commerce and manufactures. Its flour-mills are, perhaps, the most extensive in the Union, and it also manufactures machinery, agricultural implements, castings, cotton and woolen goods, paper, etc., these branches of business relying chiefly on the vast water-power derived from the river falls for their prosecution. About 600,000 barrels of flour are annually manufactured in the Rochester district, requiring at least 3,000,000 bushels of wheat, which is chiefly received by canal, but in a great measure also by lake from Canada. Rochester is a fine city, on a nearly level site, and has spacious and well-paved streets, adorned with numerous public buildings and handsome residences, built chiefly

of brick or limestone quarried in the vicinity. The Genesee, within a course of three miles, falls 226 feet, and has three perpendicular falls of 97, 20, and 105 feet respectively. The first of these is within the city limits.



ROCHESTER AND THE GENESEE FALLS.

58. Syracuse, capital of Onondaga County, is situated at the south extremity of Onondaga Lake and on the Erie Canal and Central Railroad, about midway between Buffalo and Albany. The canal is here joined by the Oswego Canal, extending along the Oswego River from Lake Ontario. and the Central Railroad, by a line from Oswego and another from the south *via* Binghamton. The central position it thus enjoys is highly conducive to its prosperity, and has made it a commercial station of importance. It is also an important manufacturing town, and in its vicinity are several villages engaged in the manufacture of salt.

59. Utica, in Oneida County, is a goodly city on the Mohawk River, Erie Canal, and Central Railroad, 95 miles from Albany; and the Chenango Canal and several lateral railroads also come in here. The city is well-built and is the seat of the State Lunatic Asylum and several other public buildings. Its manufactures are extensive and flourishing, and its commerce rapidly increasing.

60. Oswego, capital of Oswego County, is situated on the shore of Lake Ontario and on both sides of Oswego River. It is the natural port of Syracuse, and has a large trade with Canada. In 1855 its shipping amounted to 42,460 (5,199 steam) tons, and the entrances and clearances to 1,607,000 tons. The value of its imports and exports in the same year amounted to $146,235,000. The port is connected with Syracuse by the Syracuse and Oswego Railroad and the Oswego Canal.

61. Poughkeepsie, capital of Duchess County, is built on the east side of the Hudson River, and on the line of the Hudson River Railroad, 75 miles above New York. It is the largest place between Albany and New York, and has a considerable manufacturing interest.

62. Auburn, capital of Cayuga County, is a thriving city on the old line of the Central Railroad, 174 miles west from Albany. The outlet of Owasco Lake flows through the town and affords excellent water-power. The State Prison at this place is one of the largest in the world. The manufactures of the city consist chiefly of cotton and woolen goods, carpets, iron, paper, etc.

63. Schenectady is built on the right bank of the Mohawk, and on the line of the Erie Canal. It is one of the oldest cities of the State, and although enjoying extraordinary facilities for commerce is almost stationary in its population. It is the seat of Union College.

64. Hudson, capital of Columbia County, is situated at the head of ship navigation on the Hudson River and on the Hudson River Railroad, 116 miles above New York. It is both a commercial and manufacturing town, and was formerly extensively engaged in the West India trade and more recently in the whale fisheries.

65. The following is a list of the principal villages in the several counties of the State, with their population, in 1855:

ALBANY.....Coeyman's Landing, 640; Cohoes, 6,106; Green Island, 1,324; Groesbeck, 1,232; Rensselaerville, 561; West Troy, 8,306.
ALLEGHANY....Angelica, 846; Belfast, 801; Belmont, 763; Cuba, 816; Oramel, 738; Rushford, 654; Scio, 496; Wellsville, 1,286.
BROOME.....Binghamton, 8,818; Chenango Forks, 506; Deposit (656, and in DELAWARE 593), 1,249; Union, 520.
CATTARAUGUS..Ellicottville, 695; Gowanda (520, and in ERIE 338), 858; Olean, 994.
CAYUGA.....Montezuma, 650; Port Byron, 1,669; Union Springs, 1,118; Weedsport, 1,226.
CHAUTAUQUE...Dunkirk, 4,754; Ellington, 487; Forestville, 540; Fredonia, 2,004; Jamestown, 1,625; Mayville, 501; Panama, 500; Silver Creek, 652; Westfield, 1,433.
CHEMUNG.....Elmira, 8,308; Horseheads, 1,000; Millport, 706.
CHENANGO.....Greene, 814; New Berlin, 740; Norwich, 2,430; Oxford, 1,218; Sherburne, 1,140.
CLINTON.....Champlain, 1,473; Clintonville, 855; Keeseville (1,199, and in ESSEX 1,370), 2,569; Peru, 504; Plattsburg, 2,926; Rouse's Point, 1,769.
COLUMBIA.....Chatham 4 Corners, 697; Claverack, 496; Kinderhook, 1,078; Shaker Village, 392.
CORTLAND.....Cortland Village, 2,117; McGrawville, 558; Marathon, 500.
DELAWARE.....Delhi, 919; Franklin, 490; Hancock, 502.
DUCHESS.....Fishkill Landing, 1,100; Hyde Park, 692; Matteawan, 1,476; Myersville, 500 Pleasant Valley, 500; Red Hook, 625; Rhinebeck, 1,051; Wappenger's Falls, 1,819.
ERIE.....Lancaster, 1,259; Springville, 953; White's Corners, 609; Williamsville, 1,166.
ESSEX.....Essex, 601; Port Henry, 503; Westport, 456.
FRANKLIN.....Malone, 1,993.
FULTON.....Fonda's Bush, 651; Fort Covington, 894; Gloversville, 1,965; Johnstown, 1,661; Mayfield Cor., 600.
GENESEE.....Batavia, 2,868; Careyville, 500; Le Roy, 2,081.
GREENE.....Athens, 1,747; Catskill, 2,520; Coxsackie, 1,800; New Baltimore, 709; Prattsville, 617.
HAMILTON.....Lake Pleasant, (?); Hope Center, (?); Arietta, (?).
HERKIMER.....Frankfort, 1,150; Herkimer, 1,371; Ilion, 813; Little Falls, 3,984; Mohawk, 1,355; Newport, 671.
JEFFERSON.....Adams, 963; Antwerp, 621; Brownville, 621; Cape Vincent, 1,026; Carthage, 785; Clayton, 896; Sackett's Harbor, 994; Theressa Falls, 559; Watertown, 5,873.
KING'S.....East New York, 1,000; Union Place, 500.
LEWIS.....Copenhagen, 505; Lowville, 908.
LIVINGSTON....Avon, 879; Caledonia, 623; Dansville, 2,879; Mt. Morris, 1,851; Nunda, 1,125.
MADISON.....Canastota, 1,081; Cazenovia, 1,177; Chittenango, 916; Clarksville, 578; De Ruyter, 727; Eaton, 510; Hamilton, 1,448; Morrisville, 715; Oneida, 1,713; Oneida Castle, 337.
MONROE.....Brockport, 2,143; Fairport, 685; Mumford, 535; Penfield, 560; Pittsford, 702; Scottsville, 925; Spencerport, 578.
MONTGOMERY..Amsterdam, 2,044; Canajoharie, 1,500; Fonda, 687; Fort Plain, 1,502; Fultonville, 850; St. Johnsville, 648.
NEW YORK.....New York City.
NIAGARA.....Lewiston, 1,014; Lockport, 8,939; Middleport, 689; Niagara City, 1,365; Niagara Falls, 2,976; Wilson, 666; Youngstown, 768.
ONEIDA.....Booneville, 1,000; Camden, 862; Clayville, 817; Clinton, 1,174; Durhamville (800, and in MADISON 234), 1,034; New Hartford, 892; New London, 668; Oriskany, 701; Rome, 7,088; Sauquoit, 690; Waterville, 1,109; Whitesboro', 953.
ONONDAGA.....Baldwinsville, 1,675; Brewerton, 621; Camillus, 552; Elbridge, 630; Fayetteville, 1,376; Geddes, 950; Jordan, 1,331; Liverpool, 672; Manlius, 934; Skaneateles, 1,200. (Salt region.)
ONTARIO.....Canandaigua, 4,154; E. Bloomfield, 590; Geneva, 5,057; Naples, 700; Phelps, 1,278; Phœnix, 1,164.
ORANGE.....Chester, 704; Cornwall Landing, 615; Middletown, 1,878; Montgomery, 760; Newburg, 9,256; Port Jervis, 3,023.
ORLEANS.....Albion, 3,776; Eagle Harbor, 639; Holley, 614; Knowlesville, 490; Medina, 2,104.
OSWEGO.....Cleveland, 1,005; Constantia, 600; Fulton, 3,192; Mexico, 948; Oswego Falls, 703; Pulaski, 1,168.
OTSEGO.....Cherry Valley, 933; Laurens, 726; Lewisville, 504; Oneonta, 678; Unadilla, 795.
PUTNAM.....Cold Spring, 2,237.
QUEEN'S.....Astoria, 2,971; Flushing, 3,488; Hempstead, 1,486; Jamaica, 2,817; Roslyn, 592; Strattonport, 1,150; Whitestone, 680.
RENSSELAER....Greenbush, 3,303; Hoosic Falls, 1,200; Lansingburg, 2,730; Schaghticoke Point, 1,148; Schagticoke, 889.
RICHMOND.....Graniteville, 481; Mariner's Harbor, 1,142; Port Richmond, 1,429; Tottenville, 600.
ROCKLAND.....Nyack, 1,458; Piermont, 2,204; Rockland Lake, 480.
ST. LAWRENCE..Canton, 1,029; Gouverneur, 785; Ogdensburg, 7,057; Potsdam, 2,123; Waddington, 705.
SARATOGA.....Ballston Spa, 2,285; Crescent, 593; Mechanicsville, 1,111; Saratoga Springs, 5,129; Schuylerville, 1,184; South Glen's Falls, 513; Stillwater, 552; Victory Mills, 729; Waterford, 3,083.
SCHENECTADY..Schenectady.
SCHOHARIE.....Gilboa, 566; Schoharie, 806.
SCHUYLER.....Havana, 1,290; Watkins, 1,084.
SENECA.....Seneca Falls, 2,125; South Waterloo, 597; Waterloo, 3,050.
STEUBEN.....Bath, 2,012; Corning, 3,626; Hammondsport, 560; Hornellsville, 1,519; Knoxville, 628; P. Post, 777.
SUFFOLK.....Babylon, 470; Cold Spring, 602; Greenport, 1,665; Huntington, 1,328; Northport, 430; Patchogue, 1,562; Port Jefferson, 1,247; Riverhead, 813; Sag Harbor, 2,776; Sayville, 822; Setauket, 1,136.
SULLIVAN.....Jeffersonville, 433; Monticello, 629; Wartsboro', 492.
TIOGA.....Owego, 3,041; Waverly, 1,067.
TOMPKINS.....Dryden, 522; Groton, 587; Ithaca, 4,908; Trumansburg, 1,052.
ULSTER.....Kingston, 3,971; Naponeck, 700; Port Ewan, 1,300; Rosendale, 450; Saugerties, 3,334.
WARREN.....Glen's Falls, 3,420; Warrensburg, 700.
WASHINGTON...Fort Ann, 608; Fort Edward, 1,565; Grandview, 425; North White Creek, 652; Salem, 632; Sandy Hill, 1,260; Union Village, 1,173; Whitehall, 3,225.
WAYNE.....Clyde, 1,856; Lyons, 3,221; Newark, 2,042; Palmyra, 2,310; Wolcott, 566.
WESTCHESTER..Dobbs' Ferry, 1,040; Eastchester, 551; Hastings, 1,135; Irvington, 599; Morrisania, 2,587; Mott Haven, 843; Mount Vernon, 1,661; New Rochelle, 2,000; Peekskill, 3,538; Port Chester, 1,695; Sing-Sing, 1,440; Verplanck's, 1,456; Westchester, 1,000; West Mount Vernon, 630; Yonkers, 4,710.
WYOMING.....Arcade, 637; Attica, 1,184; Castile, 682; Perry, 935; Pike, 581; Portageville, 561; Warsaw, 1,200.
YATES.....Dundee, 732; Penn Yan, 2,277; Rushville (408, and in ONTARIO 175), 583.

66. Verrazano, a Florentine, in the service of France, is said to have discovered New York Bay in 1524; but the history of the State commences with the arrival of Hudson, an Englishman in the Dutch service, who, in 1609, ascended the river bearing his name as far as the present site of Albany. The country thus discovered was inhabited by the Mohawks, a formidable and warlike tribe, and the Manhattans, who inhabited the island on which New York city is built. In 1610 a ship was sent from Amsterdam to trade with these Indians, and other voyages were made during the succeeding years. In 1613 small trading forts were erected on the river, and several houses were built on Manhattan Island.

67. On the 29th March, 1614, the States General of the United Netherlands passed an ordinance granting to all original discoverers of lands in North America the exclusive privilege of making four voyages to each, for the purposes of trade. Under this ordinance five ships were dispatched the same year by a company of merchants. They explored extensively the coast near New York. Blok, one of the commanders, discovered and named Block Island, south of Rhode Island, and also the East River; and Captain Mey, proceding southward, discovered capes May and Henlopen; and on the return of these ships a Captain Henrickson was left on the coast to prosecute discoveries. The country extending between the Connecticut and Delaware rivers received the name of New Netherlands, and the exclusive right to trade there for three years from that date (11th October, 1614) was granted to the discoverers, who, upon the passage of this grant, formed themselves into a company called the United New Netherlands Company. This company erected the same year a fort and trading-house on an island just below the present city of Albany, and garrisoned it with ten or twelve men. Another fort was erected on the southern point of Manhattan Island. The grant expiring in 1618, the company petitioned for its renewal in vain. Private traders, however, continued to visit the country for the purposes of traffic.

68. In June, 1621, was passed the charter of the Dutch West India Company, an armed mercantile association. This company sent out a ship called the New Netherlands, on the 20th June, 1623, to their newly acquired possessions, under the direction of Mey, already noticed, and Tienpont. The former of these proceeded to the Delaware, and established a fort near the present town of Gloucester, which he named Fort Nassau, and the same year a fortified post, called Fort Orange, was erected on the site of Albany. In 1624, Peter Minuit, having been appointed director, arrived out with several families of Walloons, inhabitants of the frontiers of Belgium and France. These settled on a bay of Long Island, and called from them Wahlebocht, or bay of foreigners, a name since corrupted into Wallabout. The government was vested in the director and a council of five. In 1626 Staten Island was purchased of the Indians, and in the same year Manhattan Island was purchased for twenty-five dollars. The fort upon this latter island received the title of Fort Amsterdam, and the colony that of



STADT HUYS, NIEUW AMSTERDAM.

New Amsterdam. The exports this year amounted to $19,000. In 1627 the settlers of Plymouth Colony set up a claim to the region watered by the Connecticut, which the Dutch denied. Up to 1629 the settlements were simply trading posts. On the 7th June, 1629, a measure was adopted which is still felt in the State, and under this extensive seignories, with

feudal rights, were granted to certain individuals. Active exertions were now made to colonize these vast estates. In 1632 Minuit was recalled, and the government of Wouter Von Twiller installed, and after a lapse of five years of mal-administration, Twiller was succeeded by William Kieft.

69. During the administration of Twiller difficulties arose between the English settlers on the Connecticut and the Dutch authorities. In 1638 the restrictions which had hitherto been placed by the company upon trade were taken off and free traffic encouraged. This measure gave a new impulse to immigration. Persecution, too, drove many from New England and Virginia to settle among the more tolerant Dutch. In the mean time the aggressive disposition of the English continued. They founded a colony at New Haven, occupied the Tunxis (Farmington) Valley, and even went so far as to plow and sow the company's land around Fort Good Hope, at Hartford. Remonstrances were vain. Not satisfied with these encroachments, the Plymouth Company granted the whole of Long Island to the Earl of Stirling, and a settlement was soon after effected by Lyon Gardiner, at Gardiner's Island. The Dutch, meanwhile, were active in establishing settlements at the western extremity of the island—in *Breuckelen*, at *Gowannus*, and *Gravenzande*. In May, 1640, emigrants from Lynn, Mass., settled on Cow Neck, but were driven off by the authorities. In the autumn of the same year, however, they returned, and founded the towns of Southampton and Southold. The Indians saw, with daily increasing envy and dislike, the heritage of their fathers thus falling from them. War was the consequence, which desolated the colony for five years. In 1645 Peter Stuyvesant became governor, and only terminated his administration by the capture of his colony by the English, on the 6th September, 1664.

70. The name of the colony and city was now changed to that of New York, and Colonel Nichols was appointed by the Duke of York, to whom the territory had been granted by the king, as governor. On the 12th June, 1666, the governor granted a charter to the city of New York. The colony was recaptured by the Dutch on the 7th August, 1673. The name of the city was now changed to New Orange, that of Albany to Williamstadt, and the fort previously called Fort James to William Hendrick. Captain Anthony Colve was appointed governor. The country, however, was not destined to be Dutch, for, by the treaty of 9th February, 1674, it was restored to the English, and given up the following autumn.



NEW YORK IN 1664.

71. Some doubts arising relative to the validity of the Duke of York's patent, both on account of the Dutch occupancy and the fact that it was wrested from that nation in time of peace, he deemed it advisable to obtain a new patent from his brother, the king, in 1674. In the autumn of that year Major Edmund Andros, afterward so well known as the tyrant of New England, arrived in New York and assumed the office of governor. In February, 1685, the duke ascended the throne, under the title of James II., and among the first acts of this bigot were his instructions to allow no printing-press to be established in the colony. But his reign was short, having been put an end to by the Revolution of 1688, and the proclamation of William and Mary as heritors of the throne.

72. In 1744 war was declared between England and France, and the colonists prepared to carry it on with vigor. In 1745 New England and New York united in an attack upon the French fortress at Louisburg, and New York furnished ten pieces of cannon and £8,000 toward the expedition. It was surrendered in July of that year. The colonists were so severely molested during the year 1746 by the Indians in pay of the French, that it was determined to attack Crown Point and Niagara, and to capture Quebec. For this purpose New York raised £40,000. The enterprise proved unsuccessful, and the peace of Aix la Chapelle was concluded in 1748. For a few years after this the colony prospered, and began to recover from its losses by the wars.

73. In 1754 a convention from all the colonies north of Mason and Dixon's line met at Albany, to devise some plan of common defense against the French, who had again commenced hostilities. At this convention, Dr. Franklin, afterward so eminent in the history of the Revolution, proposed a plan of political union. In the spring of the following year an expedition was sent against Fort Du Quesne, but entirely failed, Braddock, the leader of the expedition, having been killed. Nor was the campaign of 1756 more successful. In 1758 William Pitt was placed at the head of the English government, and a new impulse was given to the energies of the nation. Success soon followed. Forts Frontenac and Du Quesne were captured. Stimulated by these successes, New York, in 1759, raised $625,000 and a force of 2,680 men. Ticonderoga was captured early in the season, and Crown Point surrendered a few days later. Fort Niagara was reduced, and on the 13th September the brave General Wolfe laid down his life, in the moment of victory, when the English banners floated over the towers of Quebec. The ensuing year the French made an unsuccessful effort to recapture Quebec, and on the 8th September all the French possessions east of the Mississippi were surrendered to the British, and the French power extinguished. Two small islands off the southern coast of Newfoundland alone were preserved to them of their former vast possessions.

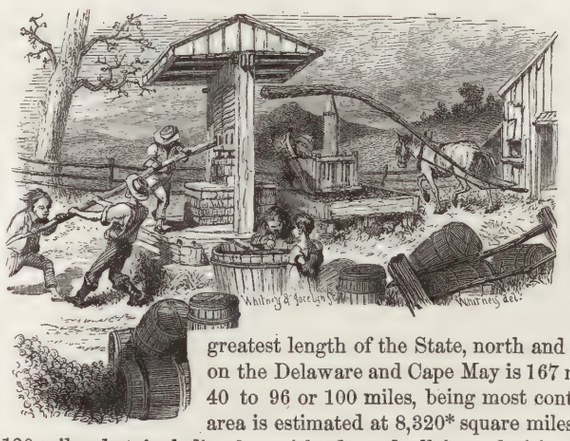
74. The imposition of the Stamp Act, in 1764, and the other atrocities of the British government which followed it, and which led to the overthrow of the British power in the colonies, need not be enlarged upon in this connection, being a part of the general history of the Union. On the first Tuesday in October, 1765, a congress, composed of delegates from the New England and Middle States, assembled at New York, to take into consideration their grievances. South Carolina had also delegates. This congress made declaration of the privileges and rights of the colonies.

75. On the 5th September, 1774, a congress from several colonies met at Philadelphia, in which, however, New York was not represented. In April, 1775, a provincial convention met at New York, and elected delegates to the second congress. The news of the battle of Lexington caused great excitement in the city, and the arms of the city were ordered to Boston, but seized by the authorities before their shipment. The war had now commenced. Ticonderoga, Crown Point, and Whitehall, in this State, were captured by the provincials, and the entire command of Lake Champlain was obtained. On the 9th July, 1771, the provincial congress met at White Plains, and took the title of Representatives of the State of New York. On the first day of their meeting they received the Declaration of Independence, and immediately passed a resolution approving it. The fortunes of the continental army from this time to the acknowledgment by England of the will of the sovereign people were various, and in New York were fought many of the famous battles of the period—those of Brooklyn Heights, Harlem Heights, Bemis' Heights, Stony Point, Ticonderoga, Fort Schuyler, Stillwater, and Saratoga, at the last of which Burgoyne surrendered to the Americans.

76. On the 12th March, 1777, a constitution for the State of New York was reported by a committee of the provincial congress, and on the 20th April ensuing was adopted as the basis of the government. Under the new constitution George Clinton was elected governor. In 1791 the industry of the State received a new impulse from the organization of a society for the promotion of agriculture, arts, and manufactures. The next year companies were organized to improve the navigation of the Hudson and Mohawk rivers, and open canals to lakes Champlain and Ontario. In 1807 Robert Fulton made his first trip with the Clermont, the first steamboat which ever plied successfully on the waters. In this enterprise he was aided by Robert R. Livingston, one of the most distinguished statesmen of the nation. The war of 1812–15 soon followed. On the 24th of December, 1814 the treaty of Ghent was signed, and peace again restored the land to its wonted prosperity.

77. Of the events which have happened since the war there are many living witnesses, and a brief notice only is required. The canal project was revived, and in 1816 the subject was brought before the legislature, and in 1817 the Erie and Champlain canals were commenced. The first was completed in 1825 and the latter in 1823. In 1835 a law was passed ordering the enlargement of the Erie Canal. Railroads had already been commenced in the State. Both have been since prosecuted with untiring energy, and these works have no doubt had a mighty influence on the prosperity of the country. In 1821, and also in 1846, the fundamental laws were revised, and many important additions made to them.

STATE OF NEW JERSEY.



1. New Jersey is situated between 38° 55′ and 41° 21′ north latitude, and 73° 58′ and 75° 29′ west longitude; and is bounded on the north by the State of New York, on the east by the Hudson River and Atlantic Ocean, on the south by the Atlantic Ocean and Delaware Bay, and on the west by Delaware Bay and River, which divide it from the States of Delaware and Pennsylvania. The greatest length of the State, north and south, between Carpenter's Point on the Delaware and Cape May is 167 miles, and the breadth varies from 40 to 96 or 100 miles, being most contracted in the middle. The land area is estimated at 8,320* square miles. The coast-line has a length of 120 miles, but including bays, islands, and all irregularities a length of 540 miles, or about one mile of coast to every 15½ square miles of surface.

2. The northwestern part of the State is hilly rather than mountainous, being traversed by several prolongations from the ridges of the Alleghanies. These hills nowhere rise to a great height, but they abound in bold and varied scenery, and are interspersed with fertile and pleasant valleys, comprising some of the best lands. Schooley's Mountain, the most prominent of these elevations, is much resorted to in the summer season, on account of its salubrious atmosphere, and for the purpose of using its mineral waters, which possess medicinal properties.

3. The eastern line of the State is formed by a bold ridge of trap rock, called the Palisades or Cloister Hill, which presenting a precipitous wall to the river, at several places, as at Weehawken, 200 feet high, gives an air of grandeur and wildness to the scenery. This wall of rock extends about 20 miles along the shore, and forms one of the principal objects which distinguish the noble panorama of the Hudson River, and many historical recollections and national traditions are connected with its localities.

4. The southern part of the State, from Raritan Bay and Trenton to Cape May, consists of a great sandy plain, nowhere rising more than 60 feet above the sea, except at the Navesink Hills, which although only 300 feet high form prominent objects on the general level, and from the ocean are the first land sighted by the approaching mariner.

* According to a recent State document the area is computed at 7,750.93 square miles. Darby gives it at 6,851 square miles. The statement in the text is from the United States census of 1850, and is retained to preserve the uniformity of the work.

5. From the low, projecting sand-bank called Sandy Hook, opposite the Narrows, to the similarly formed point of Cape May, the whole eastern coast consists of a long line of sandy beaches, here and there interrupted by inlets, and inclosing narrow, shallow lagoons, behind which extends for several miles a low marshy tract. This coast is constantly changing—several old inlets have been closed and new ones opened since the settlement of the country; and being exposed to the heavy surf of the Atlantic, and affording no sufficient harbors, it has been the scene of many dreadful shipwrecks. Barnegat, Great Egg Harbor, and Little Egg Harbor inlets are the principal points of access to the inland waters. The southwestern coast, on Delaware Bay, consists chiefly of a strip of salt marsh, which gradually terminates in the predominating sandy plain. On the shores of the Delaware River the land is more elevated, the line being intersected by the mountain ridges trending eastward from the State of Pennsylvania, and over a ledge of which, crossing the Delaware River at Trenton, the waters are carried.

6. The middle section of the State presents a beautiful and fertile region, in which agriculture is pursued with the most eminent success. This is also the great fruit-growing section of the State, and has been long and universally celebrated for its fine apples and excellent cider.

7. The Hackensack and the Passaic, the two largest rivers of the State, fall into Newark Bay. The former, which rises in New York near the line of this State, is navigable for sloops 15 miles from its mouth, and the latter, which rises in Morris County, after receiving several considerable streams from the northwest and south, has a fall of 72 feet. The Great Falls of the Passaic are surrounded by a scene of wild beauty, but much of their natural magnificence has been destroyed by turning their waters for mill purposes, and it is now only in time of flood that their normal grandeur is recognized. From these falls the course of the river is south, and it is navigable for small vessels a distance of 12 miles from its mouth. About five or six miles above the Great Falls the river has another descent of 51 feet by two leaps and a rocky rapid in the distance of half a mile—these are called the Little Falls of the Passaic.

8. The Raritan, which is navigable for small craft to New Brunswick, 17 miles up, rises to the south of the hills; and having collected the waters of its several tributaries, it takes a course eastward almost across the State, and falls into Raritan Bay opposite the southern point of Staten Island.

9. The principal streams in the southern part of the State are Great and Little Egg Harbor rivers, which admit of sloop navigation for about 20 miles inland, and Maurice River, which falls into Delaware Bay. The streams emptying into the Delaware River are numerous, but short and not navigable.

10. The sea-coast and the shores of Delaware Bay present many inlets and coves, but none accessible to vessels of large draft. Raritan Bay, between Sandy Hook and Staten Island, affords a ready communication from Amboy, the principal sea-port of the State, to the ocean. Newark Bay, to the north of Staten Island, has navigable communication through the "Kills" (a narrow strait) with New York and Raritan bays. Delaware Bay affords no harbors.

11. Sandy Hook, the southern cape of Raritan Bay, is a low sandy island about three miles in length, and is constantly extending by the accumulation of sand and other debris, and is thus always influencing and changing the currents to and from the Bay of New York.

12. All the rocks referable to the primitive, secondary, and transition eras exist: gneiss, sienite, graywacke, slate, calcareous rocks, etc., are the principal formations in the northern region. Iron in all its forms occurs abundantly, and copper, which appears in the secondary formations, is found near New Brunswick, Belleville, and Somerville in considerable quantities. In the mountain section, which extends in breadth varying from 15 to 35 miles, the geological formations are strongly blended. Rocks of a pretty uniform character, however,



PALISADES.

are found in the primitive ridges, but they are of a coarse and uneven texture, and on the surface aggregated with quartz and feldspar. Sometimes they contain shorl, garnet, hornblende, epodite, and mica. Granite, gneiss, and sienite are formed in this section by the blending and combination of these materials; and at some points the primitive greenstone is seen. The richest and most productive iron mines are also found here; as also large quantities of graphite. Black mica is found on the Ramapo River, and highly magnetic iron ore in Schooley's and Musconetong mountains; and Wallkill Valley, west of the Hamburg Mountains, is noted for the number and variety of its minerals. At Mendham a beautiful marble is found. The zinc mines of Sussex are among the most valuable in the world. Foliated or lamellar zinc is abundant in these mines; the ore, however, is chiefly in the form of red oxyd associated with iron and manganese. From this ore a paint more durable than those having lead as a base is largely manufactured.

13. The soils vary materially with the topography of the country. The mountain section is principally in its normal state, only now and then a cultivated farm being seen on the hill-sides. The soil best adapted for agriculture is found in the alluvial valleys, nor is the sandy plain in the south unfruitful. Clay and marl abound. The vegetation of New Jersey is similar to that of the central region of the United States generally: on the mountains, oak, pine, and other forest trees abound, and in many instances occupy large tracts, in which the wild animal still ranges. Abundance of stunted oaks and other trees cover the southern plain. The middle section is the most highly improved and wealthy part of the State, and is noted for its apples and peaches.

14. The climate of New Jersey is in many respects similar to that of southern New York, but is much influenced by locality and elevation; in the north, where the hills are highest, it is much cooler than in the south, where the influence of the ocean is felt, and where a low situation and reflecting sands accumulate heat in the superincumbent atmosphere. In those parts, where the mephitic vapors of the swamps taint the air with their poison, agues and fevers prevail. The hilly region and the shores, however, are eminently salubrious, and highly attractive to summer visitors and invalids.

15. In 1850 New Jersey contained 489,555 inhabitants or 58.84 to every square mile of surface or 2.11 per cent. of the total population of the United States. This population was distributed as follows:

Counties.	Population.	County Seats.	Counties.	Population.	County Seats.	Counties.	Population.	County Seats.
Atlantic	8,961	May's Landing.	Gloucester	14,655	Woodbury.	Ocean	10,032	Tom's River.
Bergen	14,725	Hackensack.	Hudson	21,822	North Bergen.	Passaic	22,569	Paterson.
Burlington	43,203	Mount Holly.	Hunterdon	28,990	Flemington.	Salem	19,467	Salem.
Camden	25,422	Camden.	Mercer	27,992	TRENTON.	Somerset	19,692	Somerville.
Cape May	6,433	Cape May C. H.	Middlesex	28,635	N. Brunswick.	Sussex	22,989	Newton.
Cumberland	17,189	Bridgeton.	Monmouth	30,313	Freehold.	and Warren	22,358	Belvidere.
Essex	73,950	Newark.	Morris	30,158	Morristown.			

—and consisted of 89,080 families inhabiting 81,064 dwellings. Of the total population 465,509 (95.09 per cent.) were whites—233,452 males and 232,057 females, 23,810 free colored—11,708 males and 12,012 females, and 236 slaves—96 males and 140 females: and of the free population (489,219), 430,441 (87.98 per cent.) were American born, of whom 385,429 were born in this State; 58,364 (11.93 per cent.) of foreign birth, and 514 of origin not ascertained. The number of free natives of New Jersey in other States was 133,381. In 1790 New Jersey contained 184,139 inhabitants; in 1800, 211,949; in 1810, 245,555; in 1820, 277,575; in 1830, 320,823; in 1840, 373,306, and in 1850 (as above), 489,555. The State census of 1855 gave the population at 569,499.*

16. The occupations of 128,740 free male persons over 15 years of age were noted in the census of 1850. Of these, 46,544 were engaged in commerce, trade, manufactures, mechanic arts, and mining; 32,834 in agriculture; 38,386 in labor not agricultural; 4,351 in sea and river navigation; 1,731 in law, medicine, and divinity; 2,457 in other pursuits requiring education; 373 in government civil service; 404 in domestic service, and 1,663 in unclassified occupations.

17. As an industrial State, and considered in relation to its population, New Jersey occupies a high station, and may be considered among the most prosperous in the Union. The *per capita* value of its products in 1850 exceeded those of all others but the four States of Massachusetts, Rhode Island, Connecticut, and California. Its railroads and canals are the routes of a vast internal commerce, and have not only been of great benefit to the State itself, but have also contributed largely to the importance and opulence of the States on its opposite borders which they connect, and over these lines the great bulk of the coal of Pennsylvania is carried to New York city and the East. The foreign commerce of the State as reported in the official returns is comparatively insignificant, but it must be remembered that its principal ports are included in the districts of the adjoining States, and that New York and Philadelphia are the entrepôts through which the greater part of its business, as well foreign as domestic, is transacted.

18. The amount of inclosed land in New Jersey in 1850 was 2,752,946 acres, or a little more than one half the total surface. This was divided into 23,905 farms, averaging 115 acres, and of the whole 1,767,991 acres were improved lands. The cash value of the whole was $120,237,511, or of each farm $5,030, and the value of implements and machinery was $4,425,503, or to each farm $185.

19. All the cereals except barley are largely cultivated. The following exhibits the amount (bushels) of each crop for the years 1840 and 1850:

	wheat,	rye,	oats,	corn,	barley,	buckwheat,
1840	774,203	1,665,820	3,083,524	4,361,975	12,501	856,117
1850	1,601,190	1,255,578	3,378,063	8,759,704	6,492	878,934

—making a total in 1840 of 10,754,140 bushels, and in 1850 of 15,879,961 bushels. The potato crop in 1850 amounted to (Irish 3,207,236, and sweet 508,015) 3,715,251 bushels; that of hay to 435,950 tons; that of clover-seed to 28,280 bushels, and of other grass-seed to 63,051 bushels, and of peas and beans to 14,174 bushels. The value of market-garden products was $475,242, and of orchard products $607,268, and in the same year 340,602 cords of wood were sold.

20. The amount of livestock in the State at the two periods, 1840 and 1850, was—

	equines,	neat cattle,	sheep,	swine,
1840	70,502	220,202	219,285	261,443
1850	68,044	211,261	160,488	250,370

—in the aggregate (1850) valued at $10,679,291; and the value of animals slaughtered in the year preceding had been $2,638,552. The other products of animals were—butter 9,487,210, and cheese 365,756 pounds; and the wool crop amounted in 1840 to 397,207, and in 1850 to 375,396 pounds.

21. The total value of agricultural products for 1840 is stated at $15,314,006, and for 1850 at $19,322,894.

* The distribution of the population among the counties in 1855 was as follows: Atlantic, 8,608; Bergen, 17,774; Burlington, 46,442; Camden, 29,160; Cape May, 6,935; Cumberland, 18,966; Essex, 95,199; Gloucester, 16,261; Hudson, 41,823; Hunterdon, 30,400; Mercer, 32,722; Middlesex, 32,403; Monmouth, 34,978; Morris, 32,493; Ocean, 10,541; Passaic, 24,624; Salem, 20,226; Somerset, 21,022; Sussex, 23,470; Warren, 25,442.

22. In 1850 New Jersey contained 4,108 manufacturing establishments, in which was invested an aggregate capital of $22,184,730, and which gave employment to 28,549 male and 8,762 female operatives. The cost of the raw material consumed in the year previous had been $21,992,186, and the amount of wages paid $9,202,788; and the value of manufactures produced was $39,713,586. The capital employed in the leading branches was as follows: in the cotton manufacture (21 factories), $1,483,500; in the woolen manufacture (41), $494,274; in the manufacture of iron—pig (10 works) $967,000, cast (45) $593,250, and wrought (53) $1,300,393; in distilleries and breweries (68), $409,655; in tanning (133), $572,857, etc. And besides these New Jersey is distinguished for its machine shops, carriage and locomotive factories, saddleries, jewelry works, glass-houses, potteries, fire-brick yards, paper mills, small-arms factories, paint works, etc. The principal seats of this industry are Newark and Paterson; and Trenton, Camden, and Jersey City are also largely engaged in manufactures, and many of the interior towns are employed in the making of shoes and boots, hats, etc. The progress of manufactures has been as follows: in 1810 the value of products was $5,313,288; in 1820 (imperfect returns), $1,175,139; in 1830 (cotton, wool, and iron only), $3,662,359; in 1840, $19,571,496; and in 1850 (as above), $39,713,586.

23. The value of home-manufactures or family goods in 1840 was $201,625, and in 1850, $112,781.

24. The shore and oyster fisheries of this State are very valuable, and from this source the markets of New York and Philadelphia receive a large portion of their supplies. In 1850 there were 101 fishing stations returned, and the capital invested in the same amounted to $109,678.

25. As before stated, the commercial returns of this State do not show a true statement of its foreign trade. For the years ending 30th June, 1850 and 1855, the value of exports is given at $1,655 and $687, and of imports for the same years at $1,494 and $1,473. These sums are due to Newark and Perth Amboy, and wholly irrespective of Jersey City, included in the port of New York. Jersey City, however, has a large direct foreign trade, and is the western station of the Cunard line of steamships. The shipping (as reported) entered in 1850 amounted to 1,601 tons, and in 1855 to 1,257 tons, and the shipping cleared amounted to 1,131 and 606 tons. The amount of shipping owned in the State in 1850 was 80,030 tons, all of which, except 201 tons, was employed in the coasting trade, and the amount in 1855 was 121,019 tons, all of which, but 173 tons, in the coasting trade. The steam shipping amounted in 1850 to 5,489 tons, and in 1855 to 20,289 tons; and the amount of shipping built in 1850 was 6,201 tons, and in 1855, 10,960 tons. The ports of New Jersey, exclusive of Jersey City, are Perth Amboy, Bridgeton, Burlington, Camden, Newark, Little Egg Harbor, and Great Egg Harbor, all of which are actively engaged in the coasting trade.

26. New Jersey has a large domestic trade carried on by means of railroads and canals, and enjoys also a vast transit business. The principal railroads have an east-and-west direction, terminating on the Delaware at Camden (opposite Philadelphia), Bordentown, Trenton, Phillipsburg (opposite Easton), and Bridgeville above Belvidere, and on the east at Jersey City (opposite New York), Newark, Elizabethport, South Amboy, and Atlantic City. The New York and Erie Railroad has also one of its termini at Jersey City. Besides these lines there are several short local lines. The total length of railroad in the State in 1855 was 529 miles, or one mile of railroad to every 15.1 square mile of surface and to every 1,076 inhabitants. The canals are the Morris Canal and Delaware and Raritan Canal, the first extending from the Delaware at Easton to Jersey City, and the latter from the Delaware at Trenton to the Raritan at New Brunswick. Both are largely engaged in the Pennsylvania and New York coal trade. As yet, however, few internal improvements have been made in the northern part of the State, but several railroads are projected toward Cape May, so as to provide lines to connect at that point with steamers to Norfolk, Va., etc.

27. In 1850 New Jersey had 26 banks, with an aggregate capital of $3,754,900, and in 1855 it had 35 banks, with capital amounting to $5,682,262. The liabilities of these institutions in the years respectively consisted of—circulation $3,046,658 and $4,285,079, deposits $2,411,861 and $3,994,541, and dues to other banks $373,453 and $616,321; and the assets comprised—loans and discounts $7,158.977 and $10,999,919, real estate $270,546 and $265,228, dues from other banks $1,578,663 and $1,639,249, specie $622,855 and $782,659, and other assets $183,468 and $1,335,233.

28. The constitution under which the State is organized was adopted on the 13th August, 1844, and went into operation on the 2d September of the same year. Every white male, 21 years of age, having resided one year in the State and five months in the county, is allowed to vote. All elections are by ballot. The legislature consists of a senate and assembly. Each county is entitled to one senator, and the members of Assembly, not more than 60 in all, are apportioned among the counties in ratio of their population. One third the senators and all the representatives are chosen annually. The governor, who must be at least 30 years of age and a seven years' resident, is elected for three years. There is no lieutenant-governor, but in case of disability or death, the president of the senate takes the governor's place. The judiciary consists of a court of errors and appeals, a chancery court, a supreme court, circuit courts, courts of common pleas, etc. Judges are appointed by the governor. New Jersey returns five representatives to the federal Congress.

29. The total resources of the State treasury for the years ending 31st December, 1850 and 1855, were $138,544 and $221,263, and the whole amounts expended were, in 1850, $125,543, and in 1855, $221,140. The principal sources of income are transit duties on railroads and canals (in 1855, $115,347), dividends on railroad and canal stock ($30,000), and taxes on railroad stock ($33,910), etc. Of the expenditures in 1855, $126,421 was for the ordinary expenses of government and $95,119 for extraordinary expenditures, including appropriations for public schools, etc. The public debt on the 1st January, 1856, amounted to $95,000, on which the interest was $5,700 a year. At the same date the State owned productive property to the value of $252,174 and other not now productive (surplus revenue loaned to the counties without interest) $764,670. The school fund amounted to $424,644, yielding $71,708 per annum. The amount of taxable property in the State in 1850 was $153,151,619, in 1855, $179,750,000.

30. The principal institutions supported in whole or in part by the State are the State Prison and the State Lunatic Asylum, both at Trenton. There is also a State Normal School at the same place.

31. The whole number of children attending school in 1850 was 91,601, or one to every 5.34 of the whole population. The school statistics refer to the 1st June of that year, and are as follows:

Classes.	Numbers.	Teachers.	Scholars.	Income.
Primary and public schools	1,473	1,574	77,930	$216,672
Academies and private schools	225	453	9,844	88,244
Universities and colleges	4	49	470	79,700

—making a total of 1,702 schools, 2,076 teachers, and 88,244 scholars, and a total income of $384,616. The number of children attending public schools alone in 1855 was 114,923, and the total cost amounted to $475,168. The number of persons unable to read and write in 1850 was 18,665, of whom 12,787 were Americans and 5,878 foreigners, and 14,248 were white and 4,417 colored persons.

32. The principal collegiate institutions and professional schools in the State in 1855 were as follows:

Institutions.	Location.	Founded.	Professors.	Students.	Libraries.	Commencement.
College of New Jersey	Princeton	1746	16	225	18,000	Last Wed. in June.
Rutger's College	New Brunswick	1770	9	106	9,600	Thurs. before 4th July.
Burlington (Episc.) College	Burlington	1846	29	118	2,100	September 29th.
Theol. Sem., Dutch Ref. Ch.	New Brunswick	1784	3	25	7,000	—
Theol. Sem., Presb. Church	Princeton	1812	5	153	11,000	—
Law School, College of N. J.	Princeton	1849	3	8	—	—

—there is no medical school in the State.

33. In 1850 New Jersey had a total of 813 churches with accommodation for 346,133 persons, and the value of these as property was $3,680,936. The most numerous denominations are the Methodist, to which about a third of the whole population belongs, and the Presbyterian, which claims a fourth of the whole. Next in point of numbers are the Baptist, Dutch Reformed, Friends, and Episcopal denominations; and then, but at a wide figure, the Roman Catholic, Congregational, Lutheran, Universalist, Unitarian, etc.

34. The principal cities of New Jersey are—Trenton, Newark, Paterson, Jersey City, New Brunswick, Camden, Burlington, etc. Their population at various times was as follows:

Cities.	1810.	1820.	1830.	1840.	1850.
Trenton	3,003	3,942	3,925	4,035	6,461
Newark	5,984	6,507	10,953	17,290	33,894
Paterson	—	—	7,331	7,596	11,334
Jersey City	—	—	—	3,072	11,473
New Brunswick	6,312	6,764	7,831	—	10,719
Camden	—	650	2,340	3,371	9,479
Burlington	2,419	2,558	2,670	3,434	4,526
Princeton	—	500	—	3,055	3,021
Elizabethtown	2,277	3,515	3,451	—	5,583

35. Trenton, the seat of government, is situate on the Delaware, at the head of steamboat navigation, and Assunpink Creek. Latitude 40° 13′ 10″ north, and longitude 74° 45′ 29″ west. The public buildings are the State House, the State Lunatic Asylum, the State Prison, etc. Several manufactures are carried on, and the city has a considerable commerce, it being the terminus of several railroads, and of the Delaware and Raritan Canal. The Delaware River is here crossed by bridges. This city is memorable on account of the battle fought here



WASHINGTON CROSSING THE DELAWARE.

on the night of December 25th, 1776, when General Washington crossed the Delaware and captured 1,000 Hessians.

36. Newark, on the Passaic, three miles above its outlet in Newark Bay, is the principal commercial and manufacturing city of the State, as well as the largest and most populous. It is regularly laid out, the streets are wide, and in parts bordered by lofty elms, and well

supplied with water and lighted with gas. Some of the public buildings are handsome and the houses generally substantial. The manufactures of Newark are on a large scale, the principal being machinery, railroad cars, carriages and wagons, zinc paint, leather goods, especially saddles and harness, jewelry, cutlery, paper hangings, etc. The commerce is generally coastwise and by railroad, by which latter means the city has communication with New York and Philadelphia, and lies on the great line of travel north and south; and regular steamboat navigation is maintained between the city and New York. The vicinity for miles round is studded wth handsome villas and villages.

37. Paterson, immediately below the great falls of the Passaic, and 16 miles northwest from New York, is also a large manufacturing city, and the great seat of the cotton manufacturing interest of the State, which is fostered by the immense water-power acquired from the falls. It contains about 20 cotton mills, several large woolen factories, machine shops, and locomotive and car factories, iron and brass founderies, gun and pistol (Colt's) factories, paper mills, etc. The city is well-built, and, with its numerous public buildings, has many claims to architectural merit. On the opposite side of the Passaic, and connected with it by two bridges, is Manchester, the manufactures of which are similar to those of Paterson, of which it is, in fact, a suburb. Paterson is on the line of the New Jersey section of the New York and Erie Railroad.

38. Jersey City is a flourishing city at the mouth of the Hudson River, opposite New York, and the northern terminus of southern travel, and the eastern terminus of the New York and Erie Railroad and of the Morris Canal. Though a separate municipality, it may be considered as a suburb of the great metropolis, with which it is connected by several ferries, and many persons doing business in New York have residences here. It is a place of considerable manufacturing industry, ship-building, and commerce, and is the New York station of the Cunard line of British steamships, which has here a splendid dock and warehouses.

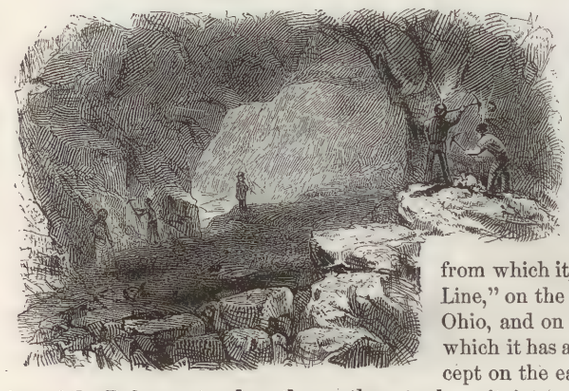
39. Elizabeth City, on Elizabeth Creek, about two miles from its entrance into Staten Island Sound, is a pleasant city and a place of considerable trade. At this point the New Jersey and the Central railroads intersect; the latter also extends to the Sound at Elizabethport, to and from which there is regular steamboat communication with New York. Elizabethport has recently become the coal depôt of the Lackawanna coal-fields.

40. New Brunswick, on the Raritan, is the terminus of the Delaware Canal, and a place of some considerable trade. It is also the seat of Rutger's College. Burlington, opposite Bristol, on the Delaware, and Camden, opposite Philadelphia, are both flourishing places—the former is the seat of a college, and the latter has thriving manufactures, and is the terminus of several railroads. Princeton is the seat of the College of New Jersey, the oldest institution of learning in the State.

41. The other principal places are Belleville, which, in 1850, had 3,514 inhabitants; Bergen, 2,758; Bloomfield, 3,385; Bordentown, 2,725; Chester, 3,601; Dover, 2,385; Gloucester, 4,559; Greenwich, 3,726; Hackensack, 3,506; Hillsboro', 3,409; Hoboken, 2,668; Middletown, 3,251; Newton, 3,279; North Bergen, 3,578; Orange, 4,385; Plainfield, 2,447; Rahway, 3,306; Salem, 3,052; Wantage, 3,934; Woodbridge, 5,141, etc.

42. In 1664 the Duke of York sold from his grant (obtained that year from Charles II.) the district between the Hudson and Delaware rivers to Lord Berkeley and Sir George Carteret, who called it New Jersey, and appointed Philip Carteret its governor. In 1673 the colony was taken by the Dutch, who resigned it in 1674. About this time the province was divided into East and West Jersey, which were separately sold and resold, and trouble steadily increased until 1702, when both were surrendered to Queen Anne, who united them under the government of New York, of which Lord Cornbury was governor. In 1738 a separate government was instituted by the crown, which lasted until 1776, when the first State constitution was adopted.

STATE OF PENNSYLVANIA.



1. Pennsylvania is situated between latitudes 39° 43′ and 42° north, and longitudes 74° 40′ and 80° 36′ west; and is bounded on the north by the State of New York, on the east by the State of New Jersey—from which the Delaware River separates it, on the south by the States of Delaware, Maryland, and Virginia—from which it is divided by "Mason and Dixon's Line," on the west by the States of Virginia and Ohio, and on the northwest by Lake Erie—on which it has a coast-line of about 47 miles. Except on the east, which is formed by the winding of the Delaware, and on the northwest where it juts northward to Lake Erie, its boundaries are straight lines, and the whole territory of the State is very compact, forming a parallelogram about 300 miles long and 160 miles wide; and containing a superficial area estimated at 46,000 square miles.*

2. Pennsylvania is naturally divided into three distinct geographical regions—the eastern or Atlantic slope, the central or mountain region, and the western or the Ohio and Erie table-land. It is the only State, with the exception of Virginia, that stretches quite across the great Apalachian system of mountains.

3. The principal mountain chains definitely traceable in the State are as follows:

The South Mountain, which enters from New Jersey, between Northampton and Bucks counties, and after being interrupted by the Schuylkill above Pittstown, and the Susquehanna near the southern border of the State, passes into Maryland;

The Blue Ridge enters Pennsylvania below Easton, crosses the Schuylkill at Reading and the Susquehanna below Harrisburg, and passes out of the State between Adams and Franklin counties. The elevation of the South Mountain nowhere exceeds 1,000 feet, and that of the Blue Ridge not more than 1,200 feet;

The Kittatinny or Blue Mountain also enters this State from New Jersey, and is broken by the Delaware at Water Gap, by the Lehigh at Wind Gap, by the Schuylkill above Hamburg, and by the Susquehanna about five miles above Harrisburg. It then passes between Franklin and Bedford counties into Maryland. Its elevation in Pennsylvania varies from 800 to 1,500 feet above the level of the sea. Between this range and the north branch of the Susquehanna, a distance of about 35 miles, is the great anthracite region;

The Broad Mountain, which lies in the intervening space between the Kittatinny Mountain and Susquehanna River, forms a less continuous but more elevated chain than the last mentioned. It is continued southwest of the Susquahanna by the Tuscarora Mountains;

Sidelong Hill forms a well-defined ridge, from the Maryland line to the Juniata; and—

The Alleghany Mountain, which is the dividing ridge between the Atlantic basin and the basin of the Ohio.

Westward of the Alleghany chain, and on the Ohio table-land, two well-defined chains cross the State from north to south, under the names of—Laurel Ridge, about 25 miles west of the Alleghany Mountain, and—Chestnut Ridge, ten miles farther west.

Though in some places rude and rocky, many of these mountain ranges consist of gradually rising swells, cultivated to the summits, and the whole mountain region is interspersed with highly beautiful and productive valleys, some of which are of considerable extent, and under an excellent system of cultivation.

4. The Delaware, that rises in the Kaätsbergs in New York, and washes the eastern border, may yet be considered as a river of Pennsylvania, from which it receives its principal tributaries. This river meets the tide at Trenton, to which place it is navigable for sloops; at and above that point navigation is impeded by falls and shoals. Large ships ascend to Philadelphia, about 40 miles below which it expands into a broad bay. Its whole course is about 320 miles in length. The canals connected with various points of the coal region, and uniting its waters with those of the Hudson, the Raritan, and the Chesapeake, have greatly increased its importance as a channel of trade. Its principal tributaries in Pennsylvania are the Lackawanna, the Lehigh, and the Schuylkill, which rise in the anthracite region. The Schuylkill has a course of 130 miles, and is navigable for vessels of above 300 tons to Philadelphia, six miles below which it falls into the Delaware. The Susquehanna is the principal river of the State in point of size, but is much broken, and of comparatively small value to commerce. It rises in Otsego Lake in New York, and flows in a generally south direction to the Chesapeake, 400 miles from its source. Its principal tributaries are the Unadilla, and Chenango in New York, and the Tioga, West Branch, and Juniata in Pennsylvania, all from the right. The most considerable from the left are the Lackawannock, Swatara, and Conestoga. The channels of the Susquehanna are so winding and broken, that even the descending navigation is extremely difficult and dangerous, and its tributaries partake of the same character.



VIEW IN THE VALLEY OF WYOMING.

6. The great rivers of Western Pennsylvania are tributaries or rather constituents of the Ohio. The Alleghany, one of its constituents, is navigable to Olean in New York, 240 miles from its mouth, and to Waterford in French Creek, its principal tributary, 14 miles from Lake Erie. The Conemaugh is its principal tributary from the east. The other constituent of the Ohio is the Monongahela, which descends from the Alleghany Ridge of Virginia, and before its junction with the Alleghany receives the Youghiogeny, a large stream from Maryland.

* According to Darby 46,980 square miles, of which 6,710 belongs to the basin of the Delaware, 21,390 to that of the Susquehanna, 150 to that of the Genesee, 1,590 to that of the Potomac, 16,760 to that of the Ohio, and 380 to that of Lake Erie.

Both these rivers afford boat navigation for a considerable distance. After the junction of the Alleghany and Monongahela, the Ohio has a short part of its course on the border of Pennsylvania. Big Beaver is the only tributary from this State.*

7. The mineral resources of Pennsylvania consist chiefly of its vast deposits of coal and iron. The coal is of three distinct varieties, anthracite, semi-bituminous, and bituminous. The anthracite of Pennsylvania is found chiefly in the Lehigh, Schuylkill, Wyoming, and Lackawanna regions. This coal district is occupied by mountains which run parallel with the Blue Ridge, and from 1,200 to 1,500 feet high. But little of all this surface, with the exception of a few narrow valleys, invites cultivation, and as yet the mountains offer a secure retreat to cougars, wolves, bears, and other animals. The rocks of this region are of the transition series, and present little diversity. Anthracite has been found in the greatest quantity in sections most accessible by water. Extensive veins and beds range from the Lehigh to the Susquehanna, crossing the head waters of the Schuylkill and Swatara; but in no part of the district does it occur in such apparently inexhaustible beds as in the vicinity of Mauch Chunk. Next to Mauch Chunk, Pottsville, situate at the head of the Schuylkill Canal, has worked the principal anthracite coal-fields. Almost every eminence adjacent to Pottsville discloses indications of this mineral. The western part of Pennsylvania is abundantly supplied with bituminous coal, as the eastern is with anthracite. It is found on the Conemaugh, Alleghany, and Monongahela, and in numerous places on the west of Alleghany Ridge, which is, in general, its eastern boundary. Of the total area of the State, about one third is coal-lands. The semi-bituminous coal occupies a region intermediate with the anthracite and bituminous regions.

8. Almost every county of the State contains deposits of iron, in one or other of its multifarious forms. It exists in the greatest measure, and in its most valuable ores, in the bituminous coal region. Pennsylvania, indeed, is said to produce nearly one half of the whole iron manufactured in the United States. The State is also rich in many of the other useful metals. Extensive copper and lead formations have lately been discovered near the Schuylkill. The lead is argentiferous. Zinc is also a product of the State. Limestone, marbles, granite, etc., with a vast variety of other valuable building materials; alum, and other useful earths, etc., are distributed over the State in an unexampled profusion. Salt is chiefly derived from springs on the Kiskiminetas, Alleghany, and Beaver rivers. There are also, in various parts, many mineral springs.

9. Pennsylvania has a climate intermediate between the extremes of the northern and southern sections of the country; the temperature, however, varies much with elevation, and even in the summer the air of the mountains is cool and pleasant. On the whole, the climate is highly favorable to agricultural pursuits. The great extent of limestone formation in Pennsylvania assures to the soil fertility and productive strength, and, though extending over so large a surface, it is in the main of excellent quality. Many of the mountains admit of cultivation to their summits, and the intervening valleys contain much fine land. West of the mountains the soil is a deep mold, equal in fertility to the best lands in America.

10. The natural growths vary with the locality and elevation, but do not differ in their character from those of other portions of the middle zone of the Union. The trees most common in the forests are beech, hemlock, and sugar-maple, the oak, hickory, and elm, chestnut, mulberry, and locust. The wild plum and crab-apple grow in abundance, and the grape flourishes in the valleys. Fruit and garden vegetables of every description are cultivated. In the more sequestered parts of the State, wild animals are still numerous.

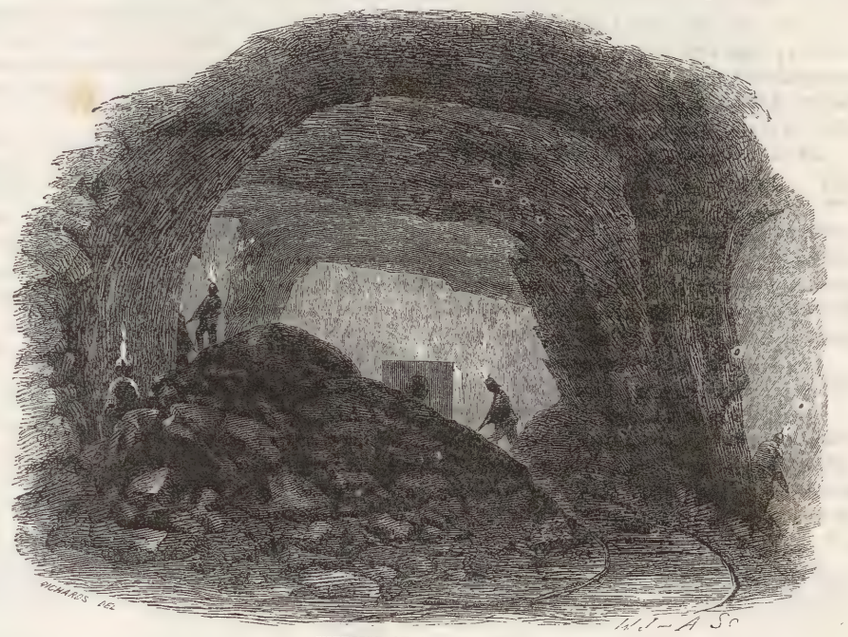
11. In 1850 Pennsylvania contained 2,311,786 inhabitants or 50.26 to the square mile or 9.97 per cent. of the total population of the Union. The distribution of this population to the counties was as follows:

Counties.	Population.	County Seats.
Adams	25,981	Gettysburg.
Alleghany	138,290	Pittsburg.
Armstrong	29,560	Kittanning.
Beaver	26,689	Beaver.
Bedford	23,052	Bedford.
Berks	77,129	Reading.
Blair	21,777	Hollidaysburg.
Bradford	42,831	Towanda.
Bucks	56,091	Doylestown.
Butler	30,346	Butler.
Cambria	17,773	Ebensburg.
Carbon	15,686	Mauch Chunk.
Centre	23,355	Bellefonte.
Chester	66,438	Westchester.
Clarion	23,565	Clarion.
Clearfield	12,586	Clearfield.
Clinton	11,207	Lock Haven.
Columbia	17,710	Bloomsburg
Crawford	37,849	Meadville.
Cumberland	34,827	Carlisle.
Dauphin	35,754	Harrisburg.
Delaware	24,679	Media.
Elk	3,531	Ridgeway.
Erie	38,742	Erie.
Fayette	39,112	Uniontown.
Franklin	39,904	Chambersburg
Fulton	7,567	McConnelsb'g.
Greene	22,136	Waynesburg.
Huntingdon	24,786	Huntingdon.
Indiana	27,170	Indiana.
Jefferson	13,518	Brookville.
Juniata	13,029	Mifflinstown.
Lancaster	98,944	Lancaster.
Lawrence	21,079	Newcastle.
Lebanon	26,071	Lebanon.
Lehigh	32,479	Allentown.
Luzerne	56,072	Wilkesbarre.
Lycoming	26,257	Williamsport.
McKean	5,254	Smithport
Mercer	33,172	Mercer.
Mifflin	14,980	Lewistown.
Monroe	13,270	Stroudsburg.
Montgomery	58,291	Norristown.
Montour	13,239	Danville.
Northampton	40,235	Easton.
Northumberl.	23,272	Sunbury.
Perry	20,088	Bloomfield.
Philadelphia	408,762	Philadelphia.
Pike	5,881	Milford.
Potter	6,048	Coudersport.
Schuylkill	60,713	Pottsville.
Somerset	24,416	Somerset.
Sullivan	3,694	La Porte.
Susquehanna	28,688	Montrose.
Tioga	23,987	Wellsboro'.
Union	26,083	New Berlin
Venango	18,310	Franklin.
Warren	13,671	Warren.
Washington	44,939	Washington.
Wayne	21,890	Honesdale.
Westmorel'd.	51,726	Greensburg.
Wyoming	10,655	Tunkhannock.
York	57,450	York.

—and it was composed of 408,497 families inhabiting 386,216 dwellings. Of the total population 2,258,160 (97.68 per cent.) were whites—1,142,734 males and 1,115,426 females, and 53,626 free colored—25,369 males and 28,257 females; and 2,014,619 (87.14 per cent.) were American born, of whom 1,844,672 were born in this State; 294,871 (12.75 per cent.) foreign born, and 2,296 of unascertained origin. The number of natives of Pennsylvania in other States of the Union was 422,055. In 1790 Pennsylvania contained 434,373 inhabitants; in 1800, 602,361; in 1810, 810,091; in 1820, 1,049,458; in 1830, 1,348,233; in 1840, 1,724,033; and in 1850 (as above), 2,311,786. In 1855 a State census gave the population at 2,542,960.

12. Of 680,644 free male persons over 15 years of age returned in the census of 1850 as employed in industrial pursuits, 266,927 were engaged in commerce, trade, manufactures, mechanic arts, and mining; 207,495 in agriculture; 163,628 in labor not agricultural; 101 in the army; 9,064 in sea and river navigation; 9,954 in law, medicine, and divinity; 10,830 in other pursuits requiring education; 3,719 in government civil service; 4,431 in domestic service, and 4,495 in unclassified occupations.

13. Pennsylvania is the chief mining State of the Union; but at the same time it is eminently an agricultural region and also largely engaged in manufactures. In the absolute value of its annual agricultural products it is exceeded only by New York and Ohio, and in that of its manufactures by New York alone; but in the *per capita* value of its aggregate products it ranks below any of the New England States except Maine and Vermont, and also below New York, New Jersey, and California. Thus in 1850 while the production of Pennsylvania was only $99 30 *per capita*, that of Massachusetts (the highest) was $166 60, and that of New York (the lowest among the States above named) was $111 94. The Delaware being its only seaward outlet its foreign commerce is comparatively limited; but it has a large coasting trade, and from the facilities given it by its canals and railroads enjoys a vast and ever-increasing transit and domestic trade. It is, however, to its mines that this State owes its peculiar prosperity, and from its coal and iron regions are derived fully two thirds of the whole coal and iron consumed in the Union—its eastern mines supplying New York and New England, and its western mines supplying Pittsburg and its commercial circuit with these important minerals.



INTERIOR OF A COAL MINE.

14. The quantities of the several varieties of coal mined in Pennsylvania in 1857 were—anthracite 6,420,342 tons, semi-bituminous 494,100 tons, and of bituminous about 58,000,000 bushels. Of the latter 28,973,594 bushels were mined on the Monongahela, and the quantity in other sections of the bituminous regions is estimated at an equal amount.

15. Of the anthracite mined in 1857, the Schuylkill region delivered 2,985,541 tons, the Lehigh 1,318,549 tons, the Lackawanna 480,677 tons, the Pittston 543,873 tons, the Scranton 332,146 tons, and other regions (Wyoming, etc.) northwestward 759,556 tons. In 1820, the year in which anthracite coal was first mined, the product was only 365 tons, all from the Lehigh region; the first coal was brought from the Schuylkill region in 1825; from the Lackawanna region in 1829, from the Wyoming region in 1839, from Pittston in 1850, and from Scranton in 1856. The productions of these regions for the ten years ending with 1857 has been as follows:

Years.	Schuylkill.	Lehigh.	Lackawanna.	Pittston.	Scranton.	Other Regions.	Total.
1848	1,652,885	680,746	437,500	—	—	256,627	3,089,238
1849	1,605,126	801,246	454,240	—	—	303,736	3,242,541
1850	1,712,007	722,622	432,339	111,014	—	276,339	3,254,321
1851	2,184,240	989,296	472,478	316,017	—	415,099	4,377,130
1852	2,452,026	1,114,026	497,839	426,164	—	439,342	4,925,695
1853	2,470,943	1,080,544	494,827	512,659	—	556,018	5,114,491
1854	2,895,208	1,246,418	438,406	496,643	—	676,689	5,753,369
1855	3,430,768	1,284,114	565,460	504,803	—	767,156	6,552,301
1856	3,258,356	1,351,970	499,650	612,500	122,773	906,293	6,751,542
1857	2,985,541	1,318,549	480,677	543,873	332,146	759,556	6,420,342

—and the average annual delivery in periods of five years from 1820 has been as follows—(1820–24) 3,809 tons, (1825–29) 67,194 tons, (1830–34) 315,961 tons, (1835–39) 736,656 tons, (1840–44) 1,165,504 tons, (1845–49) 2,736,226, and (1850–54) 4,685,001 tons. The annual average for the three years ending with 1857 was 6,574,728 tons.

16. Blossburg was the first source of the semi-bituminous coal, and the only source from 1840 to 1849. The quantity mined in the intervening years was as follows—(1840) 4,235 tons, (1841) 25,966 tons, (1842) 13,164 tons, (1843) 6,268 tons, (1844) 14,234 tons, (1845) 29,836 tons, (1846) 16,509 tons, (1847) 29,087 tons, (1848) 33,762 tons; and the following exhibits the quantities from the regions severally for the nine years ending with 1857:

Years.	Lykens Valley.	Short Mountain.	Dauphin.	Trevorton.	Broad Top Mountain.	Blossburg Mines.	Barclay Summit.	Grand Total.
1849	25,325	—	—	—	—	32,095	—	57,420
1850	37,763	—	—	—	—	23,161	—	60,924
1851	54,200	—	20,000	—	—	25,000	—	99,200
1852	59,857	—	33,639	—	—	20,000	—	113,496
1853	69,007	—	29,000	—	—	45,571	—	143,578
1854	57,500	50,000	63,000	—	—	70,454	—	240,954
1855	66,721	50,500	52,494	—	—	73,201	—	242,916
1856	61,187	41,739	77,307	73,113	42,000	70,670	4,115	370,131
1857	65,201	56,588	82,285	110,711	78,812	94,314	6,289	494,100

17. The relative amounts of fixed carbon and volatile matter in the several varieties of Pennsylvania coal are as follows:

Anthracite	carbon 87 to 89 per cent.,	and volatile matter	11 to 13	per cent.
Semi-bituminous	" 73 to 74 "	and " "	26 to 27	"
Bituminous	" 54 to 55 "	and " "	45 to 46	"

—and the steam-producing power of each is 545, 515, and 384 pounds per cubic foot of the respective coals. According to Childs' Tables, Pennsylvania contains a coal area of 15,000

* Professor Rogers, in his "Geology of Pennsylvania," states the area of the river basins to be as follows:

Basin of the Delaware proper	3,895	Basin of the Alleghany	9,546 sq. m.
" Schuylkill	1,884 "	" Monongahela	2,800 "
" Brandywine	720 "	" Beaver	3,086 "
Total of the Delaware Basin	6,499 "	*Total of the Ohio (Gulf) Basin*	15,432 "
Basin of the Susquehanna proper	17,018 "		
" Juniata	3,428 "	Basin of Lake Erie	352 "
Total of the Susquehanna Basin	20,446 "	" Lake Ontario (Genesee)	90 "
Basin of the Potomac	1,581 "	*Total of the St. Lawrence Basin*	442 "
Total of the Atlantic Basin	28,526 "	Grand Total of all the Basins	44,400 "

square miles, while in Great Britain and Ireland the coal area is only 11,000 square miles; and in relation to iron ore the relative proportions are nearly the same. Thus it will be seen that Pennsylvania in these articles of first necessity and indispensable to a state of civilization, possesses vast advantages over the most wealthy and prosperous country of the world, and holds within its own grasp a destiny as brilliant as that already achieved by the British miner.

18. In 1850 Pennsylvania contained 127,577 farms, averaging 117 acres, or in the aggregate 14,918,347 acres, or less than one half the whole surface of the State. Of the inclosed lands 8,623,619 acres were improved, and 6,294,728 acres unimproved; and together were valued at $407,876,099, averaging to each farm $3,197, and the value of implements and machinery was $14,722,541 or $115 to each farm.

19. The cereal crops in 1839–40 amounted to 57,032,426 bushels, and in 1849–50 to 63,905,497 bushels, and in the following proportions to each crop:

1840....	wheat, 13,213,077	rye, 6,613,873	oats, 20,641,819	corn, 14,240,022	barley, 209,893	buckwheat, 2,113,742
1850....	" 15,367,691	" 4,805,160	" 21,538,156	" 19,835,214	" 165,584	" 2,193,692

and in 1850 the other principal crops were—potatoes (Irish 5,980,732, and sweet 52,172), 6,032,904 bushels; hay, 1,842,970 tons; clover seed, 125,030, and other grass seed, 53,913 bushels; peas and beans, 55,231 bushels; flax, 530,307 pounds; tobacco, 912,651 pounds; wine, 25,590 gallons, etc.; and in the same year were produced 859,509 pounds of wax and honey, 2,326,525 pounds of maple sugar, etc. The value of market-garden products was $688,714, and of orchard products $723,389.

20. The description and number of livestock in the State in 1840 and 1850 was as follows:

1840.....	equines, 365,129	neat cattle, 1,172,665	sheep, 1,767,620	swine, 1,503,964
1850.....	" 352,657	" 1,153,946	" 1,822,337	" 1,040,366

—of the equines (in 1850), 350,398 were horses and 2,259 asses and mules, and of the neat cattle, 530,224 were milch cows, 61,527 working oxen, and 562,195 other cattle. The whole were valued at $41,500,053; and in the previous year the value of animals slaughtered was $8,219,848. Butter was produced to the amount of 39,878,418 and cheese to 2,505,034 pounds. The wool crop in 1840 amounted to 3,048,564, and in 1850 to 4,481,570 pounds.

21. The total value of the agricultural products of the State in 1839–40 was estimated at $51,232,204, and in 1849–50 at $73,576,837.

22. In 1850 Pennsylvania contained 21,605 manufacturing, mining, and mechanical establishments, in which was invested capital to the amount of $94,473,810, and which gave employment to 124,688 males and 22,078 females. The value of raw material consumed in the years 1849–50 was $87,206,377, and the amount paid for labor $37,163,232; and the value of the manufactures produced in the year was $155,044,910. The principal branches are thus enumerated:

Branches.	Establishments.	Capital invested.	Hands employed.	Value of products.
Cotton manufactures	208	$4,528,925	7,663	$5,322,262
Woolen manufactures	380	3,005,064	5,726	5,321,866
Iron manufactures—pig	180	8,570,425	9,294	6,071,513
" " —cast	320	3,422,924	4,783	5,354,881
" " —wrought	162	7,828,916	6,598	9,224,256
Distilleries and breweries	371	1,719,960	1,092	2,585,557
Tanneries	1,039	3,540,318	2,980	5,275,492
Salt works	47	168,360	219	206,796
All others	18,898	61,688,918	108,411	115,682,287
Total	21,605	$94,473,810	146,766	$155,044,910

The value of goods manufactured and returned by the censuses of 1810–1850 inclusive will exhibit the progress of industry in this State:

Census Years.	Cotton Goods.	Woolen Goods	Iron. Pig and Cast.	Iron. Wrought.	Spirits, Ale, etc.	All other Manufactures.	Grand Total.
1810.....	$3,060,772	$3,421,055	$1,301,343	$4,492,478	$4,365,503	$19,176,630	$35,817 781
1820*.....	555,673	333,371	563,810	1,156,266	476,516	3,809,583	6,895,219
1830*.....	2,099,715	1,323,070	1.643,702	3,762,847	—	2,502,613	11,331,947
1840.....	5,013,007	2,319,061	3,722,545	5,670,860	3,599,698	42,831,336	63,156 507
1850.....	5,322,262	5,321,866	11,426,894	9,224,256	2,585,557	121,164,575	155,004,910

The amount of domestic goods or such as are made in families was in 1840, $1,303,093, and in 1850, $749,132.

23. The following exhibits a statement of the foreign commerce of Pennsylvania for the years ending 30th June, 1850 and 1855, comparatively:

	1850. In Am. ves.	1850. In For. ves.	1850. Total.	1855. In Am. ves.	1855. In For. ves.	1855. Total.
Exports—Domestic produce	$3,428,150	$621,314	$4,049,464	$4,946,025	$1,089,100	$5,985,125
" —Foreign produce	363,225	88,917	452,142	266,335	22,878	289,213
Total exports	$3,791,375	$710,231	$4,501,606	$5,212,360	$1,061,978	$6,274,338
Imports—Total	10,795,462	1,270,692	12,066,154	12,727,017	2,582,918	15,309,935

The total shipping cleared in 1850 was 111,618, and in 1855, 149,928 tons, and the shipping entered in the years respectively 132,370 and 192,826 tons. The shipping owned in the State in 1850 amounted to 258,839, and in 1855 to 397,768 tons, and in the respective years the registered shipping was 64,205 (66 steam) and 77,441 (2,480 steam) tons, and the enrolled and licensed shipping 194,734 (60,810 steam) and 320,326 (112,879 steam) tons. The distribution of the shipping at the two periods was as follows:

Philadelphia, on the Delaware	in 1850—139,159 (15,541 steam) tons,	and in 1855—294,807 (28,732 steam) tons.
Presque Isle, on Lake Erie	" — 7,870 (5,351 ") tons,	" — 9,269 (4,720 ") tons.
Pittsburg, on the Ohio	" — 43,476 (39,840 ") tons,	" — 93,691 (81,896 ") tons.

—and the shipping built in the two years was as follows:

1850.....	ships 7	brigs 1	schooners 39	sloops, etc., 107	steamers 31	total 185 = 21,410 tons.
1855.....	" 10	" 1	" 21	" 148	" 74	" 254 = 44,415 tons.

—namely, at Philadelphia 18,150 and 33,829 tons, at Presque Isle 22 and 170 tons, and at Pittsburg 3,238 and 10,416 tons in the years respectively.

24. The progress of commerce and navigation, etc., in this State for the ten years ending 30th June, 1855, is exhibited in the annexed table:

Years.	Value of exports.	Value of imports.	Tonnage cleared.	Tonnage entered.	Tonnage owned.	Ton. built.
1846.....	$4,751,005	$7,989,396	—	—	—	—
1847.....	8,544,391	9,587,516	142,143	140,453	—	24,126
1848.....	5,732,333	12,147,584	—	—	—	—
1849.....	5,343,421	10,645,500	120,327	142,623	231,653	24,007
1850.....	4,501,606	12,066,154	111,618	132,370	258,839	21,410
1851.....	5,356,036	14,168,761	—	—	284.363	28,628
1852.....	5,828,571	14,785,917	139,932	178,364	301,723	31,220
1853.....	6,527,996	18,834,410	151,685	183,944	338,734	31,539
1854.....	10,104,416	21,359,306	174,207	194,339	361,827	36,768
1855.....	6,274,338	15,309,935	149,928	192,826	397,768	44,415

* Returns partial and very imperfect.

With exception of a small trade with Canada from the Presque Isle District, of which Erie City is the chief port, the whole foreign commerce of Pennsylvania centers at Philadelphia.

25. The domestic trade is carried on coastwise, by railroad and canal. The coasting trade, including that of Lake Erie and the Ohio River, is very extensive, and the amount of Pennsylvania tonnage engaged therein in 1855 was 214,267 tons, of which 112,668 tons were navigated by steam. These sums include the shipping of all the districts, and the proportion to each was thus: Philadelphia 213,594, Presque Isle 9,269, and Pittsburg 91,403 tons. The figures here given present a view of the relative importance of the trade of the several districts. That of Philadelphia extends north and south along the coast from the British to the Mexican territory, and steamers ply regularly to the principal intervening ports. The Ohio River trade, of which Pittsburg is the center, embraces a large share of the whole commerce of the interior States.

26. The total length of railroad in Pennsylvania in 1855 was 2,600 miles or one mile to every 18.1 square miles of surface or to every 977.9 of the total population. A large portion of this road traverses the eastern coal region, and is used for the purpose of conveying that mineral to the markets. The great traffic roads have an east-and-west direction, namely, the Pennsylvania Railroad which extends from Philadelphia to Pittsburg, and the Sunbury and Erie which with its eastern connections will when completed extend from the same city to the city of Erie on the lake of that name. West from Pittsburg several lines penetrate into Ohio, and the lake shore-line connects Erie with Cleveland, etc., on the west, and Buffalo, etc., on the east. The only north-and-south line of commercial importance is the Northern Central Railroad, which connects the middle region of the State with Baltimore on the south, and through the New York works with Rochester, Niagara, Buffalo, etc., on the north and northwest. Philadelphia reaches the same ports by her roads through the coal region. Another cross line is being built between Pittsburg and these lake termini; nor will any great length of time elapse before Pittsburg and Baltimore will have a direct connection through the Pittsburg and Connellsville Railroad, which is destined to connect at Cumberland, Md., with the Baltimore and Ohio Railroad. Otherwise the railroads of Pennsylvania are comparatively local, but of these there are several of importance, and many now being constructed will accommodate sections of the State which have hitherto had no appropriate outlets.

27. Pennsylvania has upward of 1,200 miles of canal and navigation improvement works or one mile to every 39 square miles of territory. These are as follows:

	Miles
Schuylkill Navigation—	
From Philadelphia to Port Carbon	108
*Delaware Division of State Canal—	
From Bristol to Easton	60
Lehigh Navigation—	
From Easton to Stoddartsville	84
Union Canal—	
From Reading to Middletown	77
Branch to Pine Grove	22
Susquehanna and Tide Water—	
From Columbia to Havre de Grace (13 m. in Md.)	32
*Main Line of State Canal—	
E. Div., from Columbia to Hollidaysburg	173
W. Div., from Johnstown to Pittsburg	103
*Susquehanna Division of State Canal—	
From Juniata to Northumberland	41
*West Branch State Canal—	
From Northumberland to Farrandsville	76
*Lower North Branch Division of State Canal—	
From Northumberland to Pittston	73
*Upper North Branch Division of State Canal—	
From Pittston to New York line	94
Junction Canal	—
Wisconisco Canal—	Miles
From Clark's Ferry to Millersburg	13
Delaware and Hudson Canal—	
From Honesdale to Hudson River (83 m. in N. Y.)	108
*Beaver and Erie Canal—	
From Beaver to Erie City	136
*French Creek Feeder—	
From near Meadville to Evansburg	21
Pennsylvania and Ohio Canal—	
From Newcastle to Akron (68 m. in Ohio)	78
Monongahela Navigation—	
From Pittsburg to Brownsville	87
Bald Eagle and Spring Creek Navigation—	
From Bellefonte to W. Branch of Susquehanna	25
Conestoga Navigation—	
From Lancaster to Safe Harbor	18
Youghiogeny Navigation—	
From McKeesport to West Newton	18
Total length	1,457
Portion in adjoining States	164
Total length in Pennsylvania	1,293

—the above table is taken substantially from one compiled by Thomas S. Fernon, Esq., of the "United States Mining and Railroad Register," and is doubtlessly accurate. Those canals distinguished by the note mark (*) are State works, while all the others belong to stock companies. The State canals have a total length of upward of 770 miles, and in conjunction with the Philadelphia and Columbia Railroad (82 miles) and the Portage Railroad (36 miles), also State works, cost the enormous sum of $32,542,267. These works, however, have never been otherwise than a burden to the State, the gross revenue up to the end of 1853 having been only $24,995,633, while the expenditures for repairs and management had been $19,447,653, and the interest on the capital $35,137,796; and still there was required $8,695,044 to complete them. Under these circumstances, the best policy of the State was to become divested of its whole interest in the works.†

28. In 1850 there were in Pennsylvania fifty-eight banks, with capital amounting to $17,926,222, and in 1855 seventy-one, with capital amounting to $22,026,596. The aggregate liabilities at the two periods consisted of—circulation $11,798,996 and $16,883,199, deposits $18,484,779 and $25,340,814, dues to other banks $5,857,740 and $4,955,485, and other liabilities $156,878 and $96,792; and the assets were—loans and discounts $39,430,145 and $52,549,199, stocks $1,428,354 and $2,714,232, real estate $1,134,413 and $1,128,674, other investments $1,203,464 and $678,018, dues from other banks $4,266,916 and 5,647,642, notes of other banks $2,591,962 and $4,460,673, specie funds $2,864,944 and $155,376, and specie $4,327,394 and $6,738,650.

29. Pennsylvania has had three constitutions: those of 1776, 1790, and 1838. The last named with amendments is that now in force. It confers the right of suffrage on every white free man 21 years of age, who has resided in the State one year and paid taxes. The legislature is composed of a senate of 33 members, elected for three years (one third annually), and a house of representatives of 100 members, elected for one year. Senators must be 25 years of age, and must have been citizens for the four years preceding election, and representatives must be at least 21 years of age, and have been citizens for the three preceding years. The general election is held on the 2d Tuesday in October, and the legislature meets on the first Tuesday in January annually.

30. The governor, to whom the chief executive power is intrusted, must be a citizen resident of seven years' standing, and have attained his 30th year of age. He holds office for three years, and is elected thereto by a plurality of all votes. The administrative officers of

† The main line of the public works, comprising the State railroads and the line of canal from Columbia to Pittsburg, was sold in 1857 to the Pennsylvania Railroad Company for $7,500,000, and all the other State canals were sold in 1858 to the Sunbury and Erie Railroad Company for $3,500,000—making a total for all the works amounting to $11,000,000. At a later period the Delaware Division was resold by the Sunbury and Erie Railroad Company to a new company for $1,775,000.

the State are the secretary of the commonwealth (and *ex officio* superintendent of common schools), the deputy secretary, state treasurer, auditor-general, and surveyor-general. The three last-named officers are elective.

31. By the amended constitution, all the judges are elected by the people. The judges of the supreme court (5 in number) are chosen at large and for 15 years, the one having the shortest term to serve being chief-justice. The resident judges of the courts of common pleas and other courts of record are elected by the voters in their respective districts for 10 years, and the associate justices of common pleas for 5 years; but the governor may remove any judge for reasonable cause before the expiration of his term upon the address of two thirds of each branch of the legislature. For common pleas purposes, the State is divided into 26 districts. Philadelphia and Pittsburg have special courts.

32. The public debt of Pennsylvania, funded and unfunded, amounted in 1850 to $40,775,485, and in 1855 to $40,196,994. The productive property belonging to the State was in the two years $31,112,735 and $35,744,271. The principal sources of income are from tax on property and tolls on the public works, bank, stock, and inheritance taxes, excise and licenses, tonnage and passenger tax, etc. The expenditures are disbursed principally on account of the public debt and public works, government, schools, etc. The total resources of the treasury in 1850 (including a balance from 1849, $926,207) was $5,364,338, and in 1855 (including a balance from 1854, $1,240,928) was $6,631,402. The total expenditures in 1850 (including interest on debt, $2,004,714, and expenses of public works, $1,488,799) amounted to $4,367,054, and in 1855 (including interest, $2,077,039, and expenses of public works, $1,838,791) to $5,385,705. The value of property, real and personal, taxable for State purposes in 1850 was $492,898,829, and in 1855, $531,731,304. The total value of property in the same years, however, was $772,486,120 and $1,031,731,304. The number of taxable inhabitants in 1855 was 565,146. The principal institutions in part or wholly supported by the State are the State Lunatic Asylum at Harrisburg, the Institution for the Blind at Philadelphia, the Pennsylvania Institution for the Deaf and Dumb at Philadelphia, the Pennsylvania Hospital for the Insane at Philadelphia, the Retreat for Imbecile Children at Germantown, the State prisons and houses of refuge at Philadelphia and Pittsburg, etc.

33. The whole number of children attending school in Pennsylvania in the years 1849–50 was 504,610 or one in every 4.58 of the total population. The school statistics in June, 1850, exhibit the condition of education as follows:

Classification of Schools.	Institutions.	Teachers.	Scholars.	Income.
Primary and public schools	9,061	10,024	413,706	$1,348,249
Academies and private schools	524	914	23,751	440,977
Universities and colleges	22	134	3,520	286,805

—making a total of 9,607 institutions, 11,072 teachers and professors, 440,977 scholars and students, and $2,076,031 income yearly. The number of persons over 20 years of age who could neither read nor write was 76,262, of which 66,928 were white persons—24,380 males and 48,548 females, and 9,344 were colored persons—4,115 males and 5,229 females; and 51,283 were Americans and 24,989 foreigners. In 1855 the number of common schools was 10,772, of teachers 13,078, and of scholars 416,129; cost $1,808,333.

34. The principal collegiate and professional institutions in the State, with their statistics, in 1855, were as follows:

Institutions.	Location.	Founded.	Professors.	Students.	Libraries.
University of Pennsylvania	Philadelphia	1749	9	113	5,000
Dickinson College	Carlisle	1785	8	119	21,000
Jefferson "	Canonsburg	1802	10	208	12,000
Washington "	Washington	1806	6	73	4,000
Alleghany "	Meadville	1817	7	97	10,000
Pennsylvania "	Gettysburg	1832	7	60	9,500
Lafayette "	Easton	1832	7	106	4,500
Franklin and Marshall College	Lancaster	1835	7	73	9,500
Lewisburg University	Lewisburg	1849	7	65	7,000
Polytechnic College	Philadelphia	1853	6	34	3,000
Law Department, Univ. of Penn.	Philadelphia	—	3	48	Univ. Lib.
" Dickinson Col.	Carlisle	—	2	—	Coll. "
Medical Depart., Univ. of Penn.	Philadelphia	1765	10	372	Univ. Lib.
Jefferson Medical College	"	1824	7	514	—
Medical Depart., Penn. College	"	1839	8	140	Coll. Lib.
Philadelphia College of Medicine	"	1842	7	75	—
Homeopathic Medical College	"	1851	—	—	—
Eclectic Medical College	"	1851	—	—	—
Dental College	"	1852	5	52	—
Wittemburg Theol. (Luth.) Sem.	Gettysburg	1825	3	20	10,000
German Reformed Theol. Sem.	Mercersburg	1825	2	18	6,000
Western Theol. (Pres.) Seminary	Alleghany	1828	2	51	6,000
Theological (Assoc. Ch.) Seminary	Canonsburg	1794	2	33	2,500
Theological (Assoc. Ref.) Sem.	Pittsburg	1828	3	35	2,000
Theological (Cong. Unit.) Sem.	Meadville	1844	4	22	8,000
Theological (Ref. Presb.) Sem.	Philadelphia	—	3	19	—
St. Charles Borromeo (R. C.) T. Sem.	"	—	2	35	—
St. Michael's (R. C.) Theol. Sem.	Pittsburg	—	—	—	—
Benedictine (R. C.) Seminary	Youngstown	—	7	23	—

—and there are two female medical schools in Philadelphia.

35. The whole number of churches in this State in 1850 was 3,596, which had accommodation for 1,576,245 persons, and owned property to the value of $11,586,315. The most numerous denominations in this State are the Presbyterian, Methodist, Lutheran, Baptist, and German Reformed; after these the Roman Catholic, Episcopal, and Friends, and then, but in a smaller numerical proportion, the Moravian, Union, and Mennonite, and the many minor sects. This classification is founded on the church accommodation provided for the several denominations, in which the Presbyterian has 360,000 and the Methodist 341,858, the Lutherans 261,502, and the Baptist and German Reformed respectively 128,458, and 105,793 sittings; while the Roman Catholics have 89,501, the Episcopal 57,574, and the Friends' Society 61,274 only. Of the other denominations the Moravian is the largest, having 33,015 sittings, the Union Church 27,700, and the Mennonite 23,580. None of the others have 10,000 sittings.

36. Harrisburg, the capital, occupies an elevated site on the left bank of the Susquehanna, 106 miles west-by-north Philadelphia, and 98 miles north Baltimore. Latitude 40° 16′, and longitude 76° 50′. It is a handsome city, and the center of a considerable commerce, both by river, canal, and rail, and is of some manufacturing importance. The principal public building is the State Capitol, which occupies an eminence in its northern section. It is a brick building, 180 feet long by 80 feet wide, with a portico in front supported on six columns, and is surmounted by a dome, from which there is a wide and beautiful view of the mountain and river scenery of the vicinity. On either side is a smaller building, uniform in design, containing the rooms of the several department officers. The other principal edifices are the State Arsenal, the County Prison, Masonic Hall, and numerous schools and churches. Among the manufactures carried on here the most conspicuous are those of iron and pottery. The great Pennsylvania Railroad line between Philadelphia and Pittsburg passes through the city, and is here crossed by the Northern Central Railroad, extending northward from Baltimore, and these are joined in close neighborhood by the Dauphin and Susquehanna and the Lebanon Valley railroads. The river is here crossed by a noble bridge, 2,876 feet long, which connects the city with Bridgeport, the northeastern terminus of the Cumberland Valley Railroad. Population 7,834.



PHILADELPHIA HIGH SCHOOL.

37. Higher up the river, and on the line of the Northern Central Railroad, are the flourishing towns of Millersburg, Trevorton, Sunbury, Milton, etc., all of which are noted coal depôts, and connected with the mining districts by railroad. At Milton diverges the Catawissa Railroad to Philadelphia, and at Sunbury the great Sunbury and Erie Railroad, which is to connect Eastern Pennsylvania with Lake Erie; and which, at Williamsport, forms a junction with lines to Lake Ontario, Buffalo, and Niagara Falls. The port of Erie, the western terminus of the line, is the only available lake port in the State, and is fast rising in commercial importance, being also on the shore-line of railroads between Buffalo and Cleveland. Population in 1850, 5,858; in 1855, about 10,000. It is also connected with the Ohio River by canal, and a railroad is being built to Pittsburg, and another eastward, to connect with the New York and Erie Railroad.

38. Pittsburg is situated at the confluence of the Alleghany and Monongahela, the two great constituents of the Ohio. Latitude 40° 32′, and longitude 80° 2′—353 miles west Philadelphia by the Pennsylvania Railroad. The site is a triangular plain, and backed by elevations, and in its outline is not very dissimilar to that of New York city. The streets are built in line with the rivers. It is a large city, but too small for the increase of population, and hence we find numerous towns and villages on the opposite banks, which are, in fact, but the outpourings of the metropolis. Among these Alleghany City, west of the Alleghany, is the largest, and in 1850 had 21,261 inhabitants. The other principal ones are Manchester and Birmingham. The population of Pittsburg in 1850 was 46,601. In January, 1853, a local census gave the population of Pittsburg and suburbs at 110,241, and at the present time (1856) it is probably 140,000. In commercial and industrial pursuits the suburbs are identified with the city, and ought to be considered, though under separate municipalities, as parts of it. Pittsburg is a well-built place, chiefly of brick, and in the east section is remarkably handsome. The use of bituminous coal in the factories, however, giving forth dense smoke, beclouds the atmosphere, and by discoloring the buildings gives them a dingy appearance.

39. Many of the public edifices are fine specimens of architecture. The Court House is a massive stone structure, 165 feet long and 100 feet deep, adorned in front with a portico, the dome rising 148 feet above the ground; and the Custom House is also a large building of freestone. Among other notable edifices are the market-houses, theater, and the hotels, several of the last named being among the finest in the world. The Western State Penitentiary is located in Alleghany City, and the United States Arsenal at Lawrenceville, two or three miles above the city.

40. In all there are upward of 100 churches, of which more than half are in the city proper; among these the most conspicuous are the Roman Catholic Cathedral and St. Peter's (Episcopal). These churches and the Court House occupying the summit of Grant's Hill, are the first objects seen on approaching the city. The principal benevolent institutions are the Mercy and Western Pennsylvania hospitals, a United States Marine Hospital, and several others supported by private contributions. There is also a fine house of refuge and the city and county poor-houses. Among the literary institutions of Pittsburg the most noted are the theological seminaries, one in the city proper, and the other in Alleghany City. The Western University was destroyed by the great fire of 1845, and has not again been built. Elementary and high schools of all descriptions are numerous, and there are several literary and scientific associations.

41. Pittsburg is distinguished for its vast manufactures and its extensive commerce. Its vicinity abounds with the raw material—iron, coal, and limestone, and its site, at the head of the Ohio, gives it facilities for an indefinite extension of its commerce, while railroads link it to the cities in every direction. Nearly 500 steam-engines are at work doing the behests of its mechanics. In 1855 there were in the district 22 rolling mills, with 180 puddling furnaces,

120 heating furnaces, and 250 nail machines, which annually worked up 100,000 tons of iron into bar, rod, hoop, boiler, and sheet iron, bar and sheet steel, nails, spikes, shafts, anchors, axles, etc., employing about 3,000 hands and a capital of $5,000,000. There were also 40 founderies with machine shops, and about 20 copper-smelting establishments, with numerous other large establishments connected with its metallic manufactures. Besides these there were extensive factories and mills producing paints, rifles, white-lead, soda, linseed-oil, chemicals, flour, glass, cotton goods, spirits, paper, ropes, etc., and a great variety of minor articles. In the total the manufactured products of the district are estimated at $30,000,000 annually.



INTERIOR OF A FORGE.

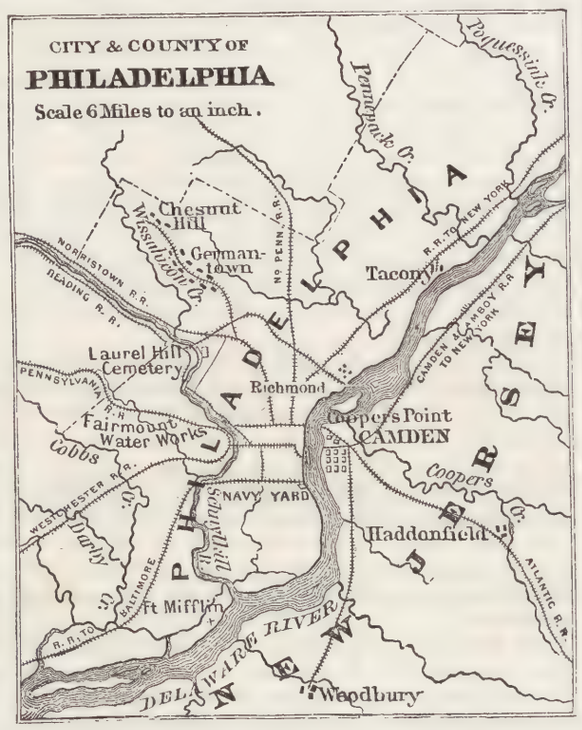
42. The estimated amount of merchandise arriving and departing Pittsburg by the Ohio River is 800,000 tons, not including the lumber and coal, but including these, about 1,800,000 tons. Domestic manufactures exported in 1855 were valued at $130,000,000. Besides this vast commercial movement, there is a large additional commerce by the canals and by the railroads centering here, which extend in every direction to the extremities of the Union. Pittsburg communicates with Alleghany City by several bridges, and with Birmingham by a suspension bridge and steam ferry. A railroad bridge has also been built over the Alleghany, so as to effect a junction between the Pennsylvania and the Pittsburg, Fort Wayne and Chicago railroads, by which an unbroken line of railroad is formed between Philadelphia and Chicago.

43. The site of Pittsburg was formerly occupied by Fort Du Quesne, a French trading-post built in 1754, and destroyed by the English in 1758. As a town its settlement dates from 1765. In 1804 it was incorporated a borough, and in 1816 it was chartered a city. In 1845 a great part of the city was destroyed by fire, but still its prosperity was unchecked, and its increase in population and wealth has since been extraordinary.

44. Philadelphia, at the eastern end of the State, is its only port having an outlet seaward. It ranks the second city of the Union. Its site is between the Delaware and Schuylkill, about six miles above their confluence, and 96 miles from the ocean, in latitude 39° 57′, and longitude 75° 10′.

45. The surface is generally a plain extending between the rivers, with streets running from one to the other, and intersected by other streets at right angles. The ground ascends to the north, and affords fine sites for villas, and around the whole city are extensive suburbs. The plan of the city was projected by Penn, its founder. Independence Square is the only great park in the thickly populated part of the city. Otherwise there are five, viz., Franklin, Penn, Rittenhouse, Washington, and Logan, besides several promenades in the vicinity, at the water-works, Lemon Hill, etc.

46. Among the public buildings are comprised many noble structures. In the Girard College, Philadelphia possesses the finest specimen of Grecian architecture in the United States. It is built of marble, and consists of a main edifice surrounded by a colonnade of 34 columns, 55 feet high and 6 feet in diameter, and several detached buildings, also of marble and in suite. The whole is surrounded by a stone wall 10 feet high and inclosing 41 acres. The cost of this institution has been two million dollars, and, in accordance with the will of Mr. Girard, a French merchant of the city, and from whose beneficenee it has been built and endowed, is devoted to the education of orphans. The other most notable buildings are the Custom House (formerly the United States Bank), the United States Mint, the Merchants' Exchange, the old State House (interesting on account of its historical associations), the Musical Fund Hall, etc. On the Delaware, south of the city, is the United States Navy Yard, which occupies about 12 acres, and nearly opposite, on the Schuylkill, is the Naval Hospital, a fine structure of marble.



47. Among the charitable institutions the Pennsylvania Hospital, founded in 1752, and its offshoot, the Insane Hospital, stand prominent. Wills' Hospital, for diseases of the eye, and the Preston Retreat, for lying-in-women, are also noble institutions; and besides these Philadelphia has four dispensaries, the State institutions for the deaf and dumb and the blind, and several hospitals and asylums belonging to the various religious denominations and civic associations.

48. The churches of Philadelphia, about 300 in number, are many of them large and substantial structures, and recently several costly and highly ornamented church edifices have been erected. Public schools are numerous and highly efficient to their purpose. At the head of these stand the Normal School and High School, the latter a popular college, the benefits of which are free to advanced pupils selected from the subordinate schools. There is also a large number of private schools and academies. The collegiate establishments are the University and several medical schools; and Philadelphia also boasts of many valuable libraries, literary associations, and societies for the promotion of the fine arts, etc. It has four theaters. The city is well supplied with water and lighted with gas, and is noted for its extreme cleanliness. The water supply of the city is chiefly brought from the Fairmount Works, on the Schuylkill, which have capacity to supply 5,000,000 gallons daily.

49. As a manufacturing city Philadelphia occupies a high position. In 1850 the capital invested in this branch of industry was $33,737,911, and the numbers employed were 43,296 males and 15,803 females. The most distinguishing productions are locomotive engines, steam machinery, chemicals, jewelry, iron work of all descriptions, cotton and woolen goods, cabinet furniture, etc., and almost every article of ornament or utility is more or less manufactured. Ship-building is also carried on to a considerable extent. In commerce Philadelphia ranks next to New York, New Orleans, and Boston, or the fourth in the United States. Its seaward trade, however, is far behind its coasting and inland trade in importance. In 1853 its shipping amounted to 252,451 tons. Regular lines of steamships are established between Philadelphia and the principal commercial cities along the Atlantic sea-board, and either directly or indirectly it is connected by railroad and canal with all parts of the Union.

50. The city is divided into 24 wards, and governed by a mayor and two councils. It has one of the best police bodies in the United States. The expenses of the government amounted in 1855 to $4,350,324, of which $2,026,994 was raised by taxes and the remainder from rents of city property, water, wharves, markets, etc. The total value of real estate subject to taxation was $155,260,000. The city debt amounted to $15,697,455, and the city property was valued at $16,681,234.

51. Philadelphia was founded by William Penn, in 1682. Here met nearly all the Revolutionary congresses; here the Declaration of Independence was promulgated on the 4th July, 1776; here met the convention that formed the present constitution, and here Congress assembled for nearly 10 years after its establishment.



INDEPENDENCE HALL.

52. On the opposite bank of the Delaware are Camden and Gloucester, which may be considered as suburbs. North of the city proper is Richmond, the greatest coal depôt of the world, and the terminus of the Philadelphia and Reading Railroad, which brings down from the Schuylkill mines upward of 3,000,000 tons of anthracite yearly, and which is distributed from this port. Philadelphia, in 1850, contained 408,762 inhabitants.

53. The other principal towns in Pennsylvania are Reading, Easton, Pottsville, Mauch Chunk, Scranton, Wilkesbarre, etc., in the northeast; Germantown, Norristown, Westchester, Lancaster, Columbia, etc., on or near the Philadelphia and Columbia Railroad; Carlisle and Chambersburg, on the Cumberland Valley Railroad; and York, on the Northern Central Railroad. Otherwise there are a large number of interior towns, many devoted to mechanical industry, mining, and commerce, but chiefly the centers of agricultural regions.

54. Reading, on the left bank of the Schuylkill, 58 miles northwest Philadelphia by railroad, is a well-built town, and in 1850 had 15,743 (now 20,000) inhabitants. It contains extensive iron works and other establishments, and is the seat of a large trade. The Lebanon Valley Railroad connects it with Harrisburg, 54 miles west, and the Philadelphia and Reading road with Philadelphia and the Schuylkill mining region. A railroad is also projected toward Easton, on the Delaware, which is the outlet of the Lehigh mines, and a city of great importance, both as relates to commerce and manufactures. Opposite, in New Jersey, and connected with it by a railroad bridge, is Phillipsburg, the western terminus of the Central Railroad of New Jersey, and intersected by the Belvidere Delaware Railroad. Farther up the Delaware, at the Water Gap, the Delaware, Lackawanna, and Western Railroad crosses the river and proceeds to and beyond Scranton, a new town which has within a few years been singularly developed, and become one of the most important mining towns in the northeast. Eastward of this, and connected with it by railroad, are the mining and commercial towns Carbondale and Honesdale, which have connection with the Hudson River by the Delaware and Hudson Canal.

55. Leading west from Scranton by the Lackawanna and Bloomsburg Railroad are Kingston and Wilkesbarre, on opposite sides of the Susquehanna, both important mining towns. South of these, by railroad, is Whitehaven, a town extensively engaged in the coal and lumber trade. It is the northern terminus of the Lehigh navigation. Mauch Chunk, on the Lehigh, is also a town of great importance, and the depôt of an extensive mining region. It is connected with Easton by the Lehigh Valley Railroad, and with Philadelphia by the North Pennsylvania Railroad, completed to Bethlehem in 1857. Population 6,284.

56. Tamaqua, on the Little Schuylkill, and to which there is a railroad from Mauch Chunk, is another important mining center, and in 1850 had 3,080 inhabitants. It is on the line of the Little Schuylkill Railroad, which joins the Philadelphia and Reading Railroad at Port Clinton. Pottsville, 15 miles north Port Clinton, and 93 miles northwest Philadelphia by railroad, is situated on the Schuylkill. It is the center of an immense coal mining region, the mineral being brought here by numerous branch railroads, and exported by the Philadelphia and Reading Railroad and the Schuylkill navigation. It was founded in 1825, and in 1850 had 7,515 inhabitants.

57. Lancaster, 68 miles west Philadelphia by railroad, is situated in the most populous

and wealthy agricultural district of the State, and for many years was the largest inland town of the United States. It is noted for its manufactures of rifles, axes, carriages, etc., and has several steam cotton factories. It is also the seat of Franklin College. The inhabitants are mostly of German descent, and in 1850 numbered 12,369. The Lancaster and Harrisburg Railroad gives this city access to the capital and the West.

58. Columbia, on the Susquehanna, and at the terminus of the Philadelphia and Columbia Railroad, 80 miles west Philadelphia, is the chief depôt of the lumber rafted down the Susquehanna. The eastern division of the Pennsylvania Canal also terminates here, and by a branch of the Lancaster and Harrisburg Railroad it communicates with the capital, and by the Wrightsville and Gettysburg Railroad with York. The river is spanned by a handsome bridge, 1½ miles long, which connects the town with Wrightsville, on the opposite bank. Population (1850) 4,140.

59. York, on the Northern Central Railroad, and by railroad 13 miles west Columbia, is a neat and substantial town, and contains many handsome buildings. The vicinity is populous and fertile. Population (1850) 6,863. Gettysburg is a flourishing town, 114 miles west Philadelphia, and 36 southwest Harrisburg. It is the seat of Pennsylvania College and of the Lutheran Theological Seminary. Carriages are the chief manufacture. A railroad to Hanover is projected, which will connect the town with Philadelphia, Baltimore, etc.

60. Carlisle is a handsome place, 28 miles west-by-south Harrisburg, and on the line of the Cumberland Valley Railroad. It is well-built, and is the seat of Dickinson College, and also of a United States cavalry barracks. Population (1850) 4,581. Chambersburg, 34 miles southwest by railroad, is situated on Conecocheaque Creek, and is surrounded by a highly cultivated and populous country, forming a part of the great limestone valley lying along the southeast base of the Blue Mountains. It has manufactures of iron, wool, cotton, paper, flour, etc. The Franklin Railroad connects it with Hagerstown, Md., and a railroad is proposed to a junction with the Pittsburg and Connellsville Railroad. Population (1850) 3,335.

61. In the extreme southwest of the State is the town of Washington, rapidly rising in importance, and important also as the junction of the Chartiers Valley and Hempfield railroads.

62. Pennsylvania is the only State of the Union which bears and transmits to future ages the name of a private individual. William Penn, the illustrious founder of Pennsylvania, a name given to the infant colony by Charles II., was the son of Admiral Penn, who in the year 1655 acquired distinction as a commander in the conquest of Jamaica and in the war with the Dutch. At an early period of life Penn had joined the Quakers, who began about that period to attract public attention, and it seems to have been the intolerance manifested toward the sect that first turned his mind toward America. He and some others purchased a large quantity of land in New Jersey, but becoming dissatisfied, he formed the design of acquiring a separate estate. The crown was indebted to his father's executors in the sum of about £16,000, and as an acquittance for this a large tract was granted to him. His charter conveyed to him all that tract of country bounded on the east by the river Delaware, extending westward five degrees, and north and south between the 40th and 42d parallels, except an area around Newcastle circumscribed by a radius of 12 miles. From want of sufficient attention to former charters, this grant interfered both with that of Maryland on the south, and with the claims of Connecticut on the east, and hence arose contentions which disturbed the repose of the colonies for a century afterward.

63. In May, 1681, the proprietary sent over Markham, with a few others, to take possession of the territory, and in July he sold 20,000 acres to a company of merchants, at the rate of £20 the thousand acres, entering into articles of agreement with them, entitled "Conditions and Concessions." In the following year Penn published his "Frame of Government," by which the supreme power was to be vested in a governor and general assembly, consisting at first in the whole body of the people, and afterward in a house of representatives. A provincial council was established, consisting of 72 persons, to be chosen by the freemen. The governor, possessed of three votes, presided in this council, which prepared and digested all laws, leaving to the people the entire right of rejecting or affirming. This constitution was after awhile laid aside, and another, resembling those established in the other provinces, was adopted.

64. In October, 1682, Penn, accompanied by about 2,000 settlers, arrived at Newcastle, on the Delaware. He had previously acquired from the Duke of York a conveyance of the land at present included in the State of Delaware. His first step on landing was to convoke an assembly, which was held at Upland (now called Chester), in December, 1682. In a short session of three days, a constitution modifying that drawn up by Penn in England was adopted, and several important laws passed. Among other provisions, that great principle, to an adherence to which the province owed much of its prosperity, was adopted, that "none acknowledging one God, and living peaceably in society, should be molested for his opinions or practice, or compelled to frequent or maintain any ministry whatsoever." Another principle of Penn's system, equally novel and praiseworthy, regarded the treatment of the Indians. Soon after his arrival he summoned them to a council, and treating with them on an amicable and equal footing, as men and brethren, obtained from them, in return for valuable presents, a cession of as much land as his exigencies required. The same course was pursued in his subsequent intercourse with them, and it was seen with surprise by mankind that kindness and good faith were as useful assistants as the sword in the affairs of a colony. No one of the colonies made such rapid advances in prosperity as Pennsylvania. The salubrity of the climate and the general fruitfulness of the soil had some influence, but the moral attractions predominated. The persecutions at home drove thousands to a place where religious worship was free, and the prospect of enjoying equal rights in civil matters, attracted from the continent of Europe a vast number of industrious and moral emigrants.



PENN'S HOUSE AS IT WAS.

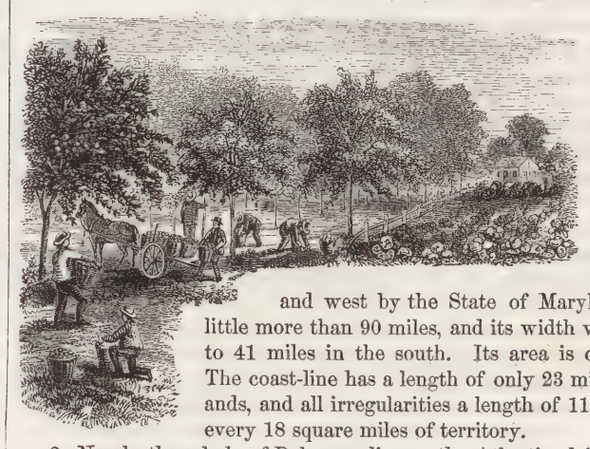
65. The city of Philadelphia was founded at an early period after the arrival of the first settlers, and the second assembly of the colony was held at this place, in April, 1683. Among other important laws adopted by this assembly was one abrogating the common law of England respecting descents, and distributing the estates of persons dying intestate among the children, giving to the eldest son, however, a double share. The Revolution in England produced some change in the government of Pennsylvania. Penn, being suspected of being disaffected toward the House of Orange, was suspended from the privilege of appointing a deputy for his province; and in 1692 Pennsylvania was annexed to New York and subjected to the administration of the governor of that province. Two years after, however, the proprietary was reinstated, and appointed a new governor. Notwithstanding the pacific disposition of the governor and people, and the general concordance of their opinions, Pennsylvania proved to be no Utopia for the worthy proprietary. Bickerings about the constitution or the laws or the manner of disposing of the lands almost constantly existed. The charter had twice been altered, but the colonists were still discontented. A third charter was given them in 1701, which provided that the assembly should consist of deputies from each county, and that it should have the right to originate, amend, or reject all bills; that the governor should nominate his own council, exercise the whole executive power, and have a negative on the proceedings of the assembly. The delegates from Pennsylvania assented to this constitution, but those from "the Three Lower Counties on the Delaware," as they were called, refused to adopt it, and seceded from the assembly. From this period the Three Counties had a distinct assembly, though they were subject to the same governor as Pennsylvania. The constitution thus adopted continued in force until the Revolution.

66. Penn died in 1718 at the age of 74 years. Since his founding the State that immortalizes his name, his life had been a uniform scene of vexation and disquiet. His private fortune had materially suffered by his advances to promote the infant colony, and at one time he was compelled to submit to a temporary deprivation of liberty. He left, however, to his descendants an inheritance of great value, which they enjoyed until the overthrow of the British power, when the Commonwealth became the possessor, and as an indemnification granted them an ample sum of money.

67. From the death of Penn the history of the colony is little more than a narrative of petty quarrels between the proprietary governors and the assembly. The chief subject of dispute arose from the lands of the proprietary, which it was wished to exempt from taxation, to which other lands were liable. The assembly resisted the exemption, and this disagreement frequently prevented the passage of necessary laws. In 1749 an important treaty was made with the Indians of the Six Nations at Philadelphia, in which, for goods of considerable value, they granted to the proprietary all the lands on the Susquehanna, south as far as the boundary of Pennsylvania and north to the Kittatinny Hills or Blue Mountain. The whole Indian title to lands within the State was subsequently merged.

68. A large portion of the inhabitants of Pennsylvania were Quakers, but notwithstanding their peaceful inclinations the colony opposed with as much zeal as her sister colonies the arbitrary measures of the British government which led to the Revolution. The first congress of deputies from the States and most of the subsequent sessions of the same assembly were held in Philadelphia, and it was at the same place that the Declaration of Independence was adopted and proclaimed. During a considerable part of the war the State was the theater of hostilities. On the Declaration of Independence the proprietary government was abrogated, and the people by their representatives formed a new constitution. The form of government adopted at this period was found after the peace to be liable to serious objections. Two parties then arose, the republicans and the constitutionalists—the former, desiring a constitution in which the legislative power should be exercised by two branches and the executive invested in a single person, finally triumphed, and in 1790 a constitution similar to that of the United States was adopted. In 1794 an insurrection broke out in four of the western counties, in opposition to the law of the United States imposing a tax on spirits. From this, called the "Whisky Insurrection," serious consequences were at first threatened, but by a happy union of firmness and lenity on the part of President Washington the revolt was quelled. In Northampton County, in 1797, some deluded persons attempted to resist the process of the marshal, but the power of the laws again triumphed. In 1799 the public offices and the sittings of the legislature, which from the settlement of the colony had been held at Philadelphia, were removed to Lancaster, and in 1812 they were transferred from Lancaster to Harrisburg, the present capital.

STATE OF DELAWARE.



1. Delaware occupies the northeastern portion of the peninsula between the Delaware and Chesapeake, and lies between latitudes 38° 28′ and 39° 47′ north, and longitudes 74° 56′ and 75° 46′ west; and is bounded on the north by the State of Pennsylvania, on the east by Delaware River and Bay and the Atlantic Ocean, and on the south and west by the State of Maryland. In length Delaware is a little more than 90 miles, and its width varies from 12 miles in the north to 41 miles in the south. Its area is computed at 2,120 square miles. The coast-line has a length of only 23 miles, but including the bays, islands, and all irregularities a length of 118 miles, or one mile of coast to every 18 square miles of territory.

2. Nearly the whole of Delaware lies on the Atlantic plain. The northern part, however, as far south as Christiana Creek, belongs to the primary tracts, and is hilly and somewhat rugged; but there are no hills exceeding 500 feet in height above the ocean. South of the

creek above named, the surface is an almost perfect level, the general slope being toward the Delaware River and the ocean. In the southwest the slope is toward the Chesapeake; and near the western boundary a table-land or low sandy ridge, nowhere more than sixty or seventy feet in height, passes through the State nearly north and south, and forms the watershed of the peninsula. This table-land abounds with swamps, in which most of the rivers and streams have their sources, some flowing west into the Chesapeake and others east into the Delaware. At the southern extremity of the State is the Cypress Swamp, a morass twelve miles in length and six in width. This swamp contains a great variety of trees and evergreen shrubs, and is infested with wild animals and noxious reptiles. The low shore along the Delaware and Atlantic is in many parts marshy, and long sandy beaches inclose shallow bays or more properly lagoons.

3. The rivers of Delaware are inconsiderable. The Choptank, Nanticoke, and Pocomoke, the head waters of which are within Delaware, have the greatest length of their courses in Maryland, and flow into the Chesapeake. Though none of these streams have great depth, most of them have a few miles of navigation for small craft from their mouths. The Brandywine, which rises in Pennsylvania, receives Christiana Creek at Wilmington, and becomes navigable for large ships, and small vessels go up the Christiana some considerable distance. Appoquinnimink River, Duck Creek, Jones' Creek, Murder Kill, Mispilion Creek, Broad Kill (the Hœrenkill of the Dutch), and Indian River, are the other principal streams, all of which are affluents of the Delaware.

4. Delaware Bay is a fine estuary, about 60 miles in length by 25 or 30 miles in greatest width, but contracting toward the north to less than five miles, and where it opens to the sea, between Cape May (latitude 38° 55′ 49″ north, and longitude 74° 57′ 39″ west) and Cape Henlopen (latitude 38° 47′ 54″ north, and longitude 75° 6′ 9″ west), the width is not more than fifteen miles. The main channel admits the largest vessels to the head of the bay and into the river, having from 35 to 75 feet of water; but is made rather tortuous and intricate by the numerous shoals which nearly fill the central portion. A breakwater consisting of two piers, opposite Lewestown, above Cape Henlopen, is of important service to the navigation of the bay, sheltering it from the fury of the waves which roll in here with great violence, and protecting it from the masses of floating ice brought down by the ebb tides. Rehoboth Bay, nine miles south of Cape Henlopen, is a spacious but shallow basin at the mouth of Indian River, not admitting vessels of more than six feet draft. It is inclosed by a long sand-beach, which protects it from the ocean.

5. In the northern part of the State, along the Delaware River and Bay, and for eight or ten miles inland, the soils are generally rich clays; from thence to the swamps the soil is light and sandy, and of an inferior quality; and the central and southern parts have also a sandy soil, which gradually becomes more unproductive as the south is approached. Bog iron ore is found in the swampy tracts of the latter section. Shell marl, highly valuable in agriculture, also occurs abundantly; and in the north is found kaolin or porcelain clay, which has supplied the Philadelphia works with that valuable earth. The climate of Delaware is in general mild, and highly favorable to agricultural pursuits. The northern and more elevated region has a remarkably salubrious atmosphere, but where the land is swampy, as in the southern parts of the State, endemic sicknesses prevail to a considerable extent. The natural productions are similar to those of the middle region of the Atlantic States. Some large timber grows in the north.



FARMING SCENE.

6. In 1850 Delaware contained 91,532 inhabitants, or 43.18 to the square mile or 0.39 per cent. of the total population of the Union. This was distributed as follows:

Counties.	Population.	County Seats.	Counties.	Population.	County Seats.	Counties.	Population.	County Seats.
Kent	22,816	Dover.	Newcastle	42,780	Newcastle.	Sussex	25,936	Georgetown.

—and consisted of 15,439 families inhabiting 15,290 dwellings. Of the total population 71,169 (77.75 per cent.) were whites—35,746 males and 35,423 females, 18,073 free colored—9,035 males and 9,038 females, and 2,290 slaves—1,174 males and 1,116 females: and of the free population (89,242), 83,968 (94.09 per cent.) were Americans, of whom 72,351 were born in this State; 5,211 (5.84 per cent.) were foreigners, and 63 were of unascertained origin. The number of natives of Delaware in other States was 31,965. In 1790 Delaware had 59,096 inhabitants; in 1800, 64,273; in 1810, 72,674; in 1820, 72,749; in 1830, 76,748; in 1840, 78,085, and in 1850 (as above), 91,532. In 1855 the population was estimated at 97,295.

7. Of 22,061 free male persons over 15 years of age engaged in industrial pursuits in 1850, the classification was as follows: 5,633 in commerce, trade, manufactures, mechanic arts, and mining; 7,884 in agriculture; 6,663 in labor not agricultural; 743 in sea and river navigation; 251 in law, medicine, and divinity; 581 in other pursuits requiring education; 124 in government civil service; 69 in domestic service, and 113 in unclassified occupations.

8. Delaware is generally considered as an agricultural State; but, in truth, it has a very varied industry, being agricultural in the south and manufacturing in the north. Its whole products in 1850 were valued at $85 27 *per capita*, being about half the ratio as presented by Massachusetts; but in Delaware the value of the productions of agriculture and manufactures are nearly equal, while in Massachusetts manufactured products are ten times that of its agricultural products. Twenty other States, however, have a *per capita* less than Delaware. With foreign commerce it has little to do, but its home trade and its trade with its neighbors is large and constantly increasing, with the greater facilities it enjoys in its railroads and other works, and the canal across its territory is the highway of a large trade between the Delaware and Chesapeake. On the whole, it is one of the most prosperous States of the Union, and what is remarkable, its government is supported without the imposition of the smallest tax on the community.

9. In 1850 Delaware contained 6,063 farms, averaging to each 158 acres, and containing in the aggregate 956,144 acres, or more than two thirds of the whole surface. Of the inclosed lands 580,862 acres were improved, and 375,282 acres were unimproved; and the whole was valued at $18,880,031, or each farm at $3,114. The value of implements and machinery was $510,279, or on the average $84 to each farm.

10. The principal cereal crops in Delaware are Indian corn, oats, and wheat. The cereal crops of 1840 and 1850 were as follows:

1840	wheat,	315,165	oats,	927,405	Indian corn,	2,099,359	barley,	5,260	rye,	33,546	buckwheat, 11,299
1850	"	482,511	"	604,518	"	3,145,542	"	56	"	8,066	" 8,615

—making in 1840 a total of 3,392,034 bushels, and in 1850 a total of 4,249,308 bushels. In 1850 the hay crop amounted to 30,159 tons; that of peas and beans to 4,120 bushels; and that of potatoes to (Irish 240,542, and sweet 65,443) 305,985 bushels. The value of market-garden products was $12,714, and of orchard products $46,574. The peaches of Delaware are highly prized in the markets, and are largely cultivated.

11. The description of livestock and the number of each in 1840 and 1850 was as follows:

1840	equines,	14,421	neat cattle,	53,883	sheep,	39,247	swine,	74,228
1850	"	14,643	"	53,211	"	27,503	"	56,261

—of the equines in 1850, 13,852 were horses and 791 asses and mules, and of the neat cattle, 19,248 were milch cows, 9,787 working oxen, and 24,166 other cattle. The whole were valued at $1,849,281, and the value of animals slaughtered in 1849–50 was $373,665. The products of animals consisted of—butter, 1,055,308, and cheese, 3,187 pounds, and the wool crop amounted in 1840 to 64,404, and in 1850 to 57,768 pounds.

12. The total value of agricultural products in 1840 is stated at $2,877,350, and in 1850 at $3,117,565.

13. Delaware in 1850 contained 531 manufacturing, mining, and mechanic establishments, using a capital of $2,978,945, and employing 3,237 males and 650 females. The value of raw material consumed in the year had been $2,864,607, and the cost of labor $936,924. The products of the year are stated at $4,649,296. The principal manufactures of this State are machinery and locomotives, carriages, gunpowder, paper, etc., and manufactures specified in the census returns are as follows:

12 cotton-mills	with capital	$460,100	and products	$538,439
8 woolen-mills	"	148,500	"	251,000
13 cast-iron works	"	373,500	"	269,462
3 wrought-iron works	"	75,000	"	38,200
16 tanneries	"	99,350	"	163,742

In 1810 the products of the manufactures of this State were valued at $2,004,912; in 1820 at $1,318,891; in 1830 at $1,991,000; in 1840 at $2,709,068; and in 1850 (as above) at $4,649,296.

14. The value of home-made goods manufactured in 1840 was $62,116, and in 1850 $38,121.

15. The direct foreign trade of Delaware is insignificant, and in some years it is "nil." None was returned in the reports for 1850. In 1855 the imports were stated at $5,821, and the exports at $63,087, and in that year only a single vessel of 144 tons entered, and 12 vessels (2,444 tons) cleared, all American tonnage. The shipping owned in the State in 1850 amounted to 16,719 (2,774 steam) tons. Of this shipping there was registered in 1850 1,651 tons, and in 1855 2,475 tons, the remainder being enrolled and licensed tonnage, and employed in the coasting trade. The shipping built in the State in 1840 was 1,848 tons, and in 1855 5,477 tons, all built at Wilmington. The only other port is Newcastle.

16. The domestic trade is carried on by coasting vessels and by railroad. Its course is generally to and from Philadelphia. The State has also a valuable transit trade, its canal and railroad crossing the neck of the peninsula forming a great commercial route between the Delaware River and Chesapeake Bay, or between Philadelphia and Baltimore, steamers connecting at both ends of the transit ways.

17. The total length of railroad in the State in 1855 was 106 miles; or one mile to every 20 miles of surface. These are the Delaware Railroad, extending from its junction with the Newcastle and Frenchtown Railroad to Seaford, through the length of the State, 71 miles, and with its connections forming a route from Wilmington to Seaford of 85 miles; the Newcastle and Frenchtown Railroad, between the two places, 16 miles, and the Newcastle and Wilmington, 4.66 miles from Newcastle to a junction with the Philadelphia, Wilmington and Baltimore Railroad, 7 miles west of Wilmington. The last named crosses the State in the north, and gives it an additional communication with Baltimore and Philadelphia. The Chesapeake and Delaware Canal connects the waters on either side of the peninsula by a channel navigable for sea-going vessels, and extends from Delaware City, 46 miles below Philadelphia to Back Creek, a navigable branch of Elk River, in Maryland, 13½ miles. This important work was completed in 1829, at a cost of $2,250,000. It is 66 feet wide at the top, with a depth of 10 feet, and has two tide and two lift locks. These are all the completed works in Delaware; but there are others projected and in progress, the objects of which are principally to form a direct line from New York and Philadelphia to Norfolk, in Virginia, and incidentally to afford accommodation to the agriculturists of the southern section.

18. On the 1st January, 1851 and 1856, Delaware had respectively nine and eleven banks, having aggregate capital amounting to $1,293,185 and $1,493,185. Their liabilities at the same periods consisted of—circulation, $833,960 and $1,192,204; deposits, $502,755 and $852,164; and miscellaneous, $170,873 and $133,303. Their assets were as follows: loans and discounts, $2,264,313 and $2,906,253; stocks, $52,986 and $44,086; real estate, $117,981 and $137,524; specie funds, $51,022 and $156,055; specie, $159,773 and $180,051; and all other assets, $383,145 and $430,723.

19. The present constitution of Delaware gives the right of voting to all free white male citizens 21 years old, and who have resided in the State one year and in the county one month. The legislature, styled the General Assembly, consists of a senate and house of representatives. Senators, three from each county, and who are chosen for four years, must be at least 27 years old, and possessed of 200 acres of freehold land in the county, or of an estate therein worth $1,000. Representatives must be at least 24 years old, and

MARYLAND, VIRGINIA, NORTH CAROLINA & SOUTH CAROLINA

SCALE OF STATUTE MILES.
0 10 20 40 60 80 100
50 Geographical or 57.63 Statute Miles to one inch.

LONGITUDE WEST FROM GREENWICH

84 83 82 81 80 79 78 77 76 75

40 39 38 37 36 35 34 33

7 6 5 4 3 2 1 0 1. 2

WASHINGTON

LONGITUDE FROM WEST

EAST

Pittsburg Wheeling Cincinnati Portsmouth Maysville Greenupsburg Ironton Point Pleasant Gallipolis Parkersburg Marietta Clarksburg Weston Middlebourne Morgantown New Martinsville Wellsburg Steubenville Hancock Beaver Kittanning Ebensburg Blairsville Greensburg Washington Somerset Connellsville Uniontown Waynesburg Moundsville Bedford Chambersburg Carlisle Harrisburg Lancaster York Columbia Philadelphia West Chester Camden Wilmington New Castle Reading Pottsville Allentown Easton Somerville New Brunswick Trenton Doylestown Dauphin Mifflin T. Huntingdon Hollidaysburg Sunbury March Chunk Frederick City Baltimore Westminster Annapolis Washington Alexandria Fairfax Leesburg Winchester Harpers Ferry Charlestown Romney Moorefield Petersburg Wheeling Ripley Gallipolis Point Pleasant Portsmouth Maysville Greenupsburg Ironton Guyandotte Putnam Barboursville Charleston Gauley Bridge Fayetteville Hawks Nest Lewisburg Sweet Springs White Sulphur Springs Union Oceana Pikeville Princeton Tazewell Jeffersonville Gladesville Lebanon Wytheville Rocky Mount Jackson Hillsville Abingdon Estillville Blountsville Elizabethtown Greeneville Knoxville Marysville Jonesville Cumberland Gap Whitesburg London Barbourville Irvine Paintsville Louisa Ballards V. Arracoma Beckley Hunterville Warm Springs Staunton Charlottesville Gordonsville Monticello Palmyra Scottsville Lynchburg Clover Hill Petersburg Richmond Fredericksburg Falmouth Stannaps V. Madison Culpeper Warrenton Leonards Alexandria Fairfax Dumfries Tobacco Pt. Fr. Frederick Cambridge Dorchester Easton Centerville Chestertown Queen Ann Benton Georgetown Lewes Rehoboth Bay Delaware Bay Cape Henlopen C. May Dover Wilmington New Castle Elkton Havre de Grace Belair Baltimore Ellicotts Mills Frederick City Market Harpers Ferry Charlestown Berry Ville Rockville Annapolis Washington Alexandria Fairfax Leesburg Winchester Romney Moorefield Petersburg Richmond Fredericksburg Falmouth Stannaps V. Madison Culpeper Warrenton Leonards

are chosen for two years. The legislature meets at Dover on the first Monday in January, biennially.

20. The governor (elected for four years by a plurality of votes) must be at least 30 years old, a citizen of the State for twelve years next before the first meeting of the legislature after his election, and an inhabitant for the last six years. The president of the senate, the speaker of the representatives, and the secretary of state are successively alternates to fill the office should it become vacant by death or disability of the governor; but in case the office be filled by the secretary of state the general assembly, at its next session, chooses a governor *ad interim*. If the governor elect die, decline, etc., the governor in office continues until a new election is had. The secretary of state is appointed by the governor. The general elections are held on the second Tuesday of November.

21. The judiciary consists of a superior court, court of chancery, orphans' courts, and probate courts. There are five judges in the State, one of whom is chancellor and president of the orphans' court, and of the other four, one is chief-justice of the State, and three associate justices, one resident in each county. The chief-justice and two of the associates form the superior court and court of general session, and all the judges, except the chancellor, form the court of oyer and terminer. The court of errors and appeals is composed of three or more of the judges. The orphans' courts consist of the chancellor and the associate judge of the county. Judges are appointed and hold office during good behavior. The probate courts are held by the registers of wills, with appeal to the superior court, and all proceedings are in writing.

22. The constitution provides that no act of incorporation shall be passed without a two-third vote, unless it be the renewal of an existing incorporation; and all acts are to contain a power of revocation by the legislature. No act hereafter passed shall be in force longer than twenty years without a re-enactment of the legislature. No person belonging to the military, naval, or marine service of the United States can gain such a residence as will entitle him to vote, by being stationed at any military or naval post in the State.

23. In 1850 the whole income of the State amounted only to $31,863, and the expenditures to a sum $5,071 less than the income. In 1855 the receipts amounted to about $55,000, and the expenditures to about $45,000. The income is derived from corporation taxes, dividends, and interest on loans, etc. In this respect Delaware is happily situated, and meets all its expenses without recourse to taxation. The State has permanent resources amounting to $350,638, and a school fund amounting to $435,506. It has no public debt.

24. In 1850 a total of 14,403 children were in attendance at the schools of this State, being in the ratio of one to every 6.36 of the whole population; and on the 1st June of that year the school statistics presented the following figures:

Institutions.	Number.	Teachers.	Scholars.	Income.
Primary and public schools	194	214	8,970	$43,861
Academies and private schools	65	94	2,011	11,125
Collegiate institutions	2	16	144	17,200

—making a total of 261 schools, 324 teachers, 11,125 scholars, and $72,186 income. The number of adults unable to read and write was 10,181, namely, 4,536 whites, 5,645 free colored, or 9,777 Americans and 404 foreigners. In 1855 there were in the State 236 public schools attended by 10,230 scholars, and the income in that year amounted to $57,738, of which $49,469 were expended.

25. The collegiate institutions of Delaware in 1855 were as follows:

Institutions.	Location.	Founded.	Teachers.	Students.	Libraries.
Delaware College	Newark	1833	7	87	7,500
St. Mary's (R. C.) College	Washington	1847	9	110	4,800

26. In 1850 Delaware contained 180 churches, with accommodation for 55,741 persons; and the value of the property held by them in the aggregate was $340,345. The principal religious denominations are the Methodist (to which church a full half of the population belongs), Presbyterian, and Episcopalian; and next to these in point of numbers the Baptist, Quaker, and Roman Catholic. Churches of other denominations are very insignificant.

27. Dover, the capital, is situate on high ground between the two principal branches of Jones' Creek, 10 miles from its entrance into Delaware Bay, and 50 miles south of Wilmington. It is a neat, regular town with a large public square, on which stands the State House and other public buildings. Population about 1,000.

28. Wilmington, on the Philadelphia, Wilmington, and Baltimore Railroad, is a port of entry and a large manufacturing city. It is situate between Brandywine and Christiana creeks, one mile above their junction. Manufactures of various kinds are carried on, and it has also a considerable commerce and transit trade. Population 13,979. The Brandywine is navigable for merchantmen, and Christiana Creek for vessels drawing eight feet water. On the former are numerous extensive flouring-mills.

29. Newcastle is situate about five miles south-southwest of Wilmington, and is also a place of considerable manufacturing industry. It is connected with Wilmington by railroad, and is also the eastern terminus of the Newcastle and Frenchtown Railroad. The manufactures carried on are various, and include machinery, etc. Population 1,202.

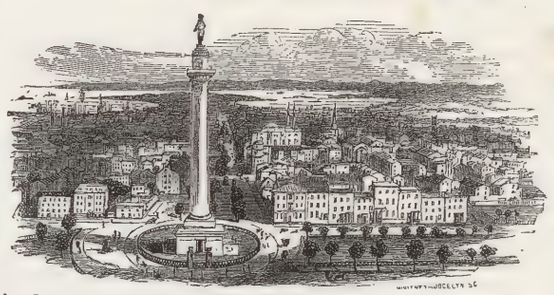
30. Delaware City is the eastern terminus of the Chesapeake and Delaware Canal, where it meets the river. It is a small town, but has an active trade. Population 908. Port Penn has 273 inhabitants. None of the other places have more than 200 inhabitants.

31. Lord De La War, Governor of Virginia, appears to have been the first to enter the bay which thence took his name. This was in 1610. The Dutch, from whom the names of its capes are derived, frequented it soon after, and had a post at Hœrenkill, but the precise date of their arrival is uncertain. The bay was by them called Nieuw Port Mey or Gœdyn's Bay, and the river Zuyd Rivier or South River.

32. The Swedish West India Company, chartered in 1635 by Oxenstiern, sent out in 1637 a ship with a body of colonists under Peter Menewe or Minuits. In the following year Minuits seated himself on the Maniques, now Brandywine River, and there built Fort Christina. The Dutch, however, had never relinquished their claim in this region, and in 1651 they built Fort Cassimer on the site of Newcastle. The subsequent settlements of the Swedes were mostly within the present limits of Pennsylvania, where New Gottenburg (Nya-Gœtheborg), the capital of New Sweden (Nya-Sveriga), was founded on the island of Tinicum. In 1655 a small force from New Amsterdam reduced the Swedish settlements, which were incorporated with New Netherlands, and with that colony taken possession of by the English in 1664.

33. The settlements on the Delaware, although this region fell within the chartered limits of Maryland, were attached to the province of New York until 1681, when they were purchased of the Duke of York by William Penn, who annexed them to Pennsylvania under the name of the "Territories or the Three Lower Counties on the Delaware." They continued subordinate to that province, though with a distinct legislature, from 1701 until 1776, when Delaware declared itself an independent State, and a constitution was framed by the inhabitants thereof. In 1792 a new constitution was framed, which was modified in 1802, in 1831, and in 1838.

STATE OF MARYLAND.



1. Maryland is situated between latitudes 37° 50′ and 39° 43′ north, and longitudes 75° 4′ and 79° 33′ west; and is bounded on the north by Pennsylvania, on the east by Delaware and the Atlantic Ocean, and on the south, southwest, and west by Virginia, from which it is separated mainly by the Potomac River. The greatest extent of the State, east and west, is about 200 miles, with a width varying from a few miles to 120 miles. The land area is computed at 11,124 square miles; including the waters of Chesapeake Bay the whole area is 13,959 square miles.

2. Maryland presents to the ocean a front of only 33 miles, but with the shore-line of the bays, islands, and all irregularities its shore-line measures 509 miles, or about one mile of shore to every 22 miles of surface.

3. Maryland is naturally divided into two distinct physical regions: the one an elevated region, traversed by various ridges of the Alleghanies; and the other, lying below the lower falls of the rivers, a level country, scarcely rising above the adjacent waters. The latter of these regions is subdivided into two unequal parts by Chesapeake Bay, which are known as "Western Shore" and "Eastern Shore."

4. The "Eastern Shore" forms a part of that long peninsula which, projecting southward toward and into the Atlantic Ocean, divides the waters of the Chesapeake from those of Delaware Bay. Throughout, the soils are more or less sandy. Few rocks are found in any part, and the mineral deposits consist chiefly of bog-iron ore, chromes, etc., with aluminous and magnesian earths. In the north, however, the surface is rugged, and has a rocky substratum—the rocks chiefly sandstone and slate. Marl, shell-lime, marsh-mud, peat or turf, and other agents used as fertilizers, abound. The climate is genial, and, with exceptions, the country enjoys a salubrious atmosphere. The growths consist principally of oaks of various species, hickory, chestnut, pine, locust, walnut, cedar, gum, beech, and a great variety of shrubs and herbaceous annuals. Wheat and Indian corn are the staple agricultural products, and in the more southern counties the cotton plant is said to succeed well.

5. The "Western Shore" consists of another peninsula lying inland between the Potomac and Chesapeake, and up to the line of the river falls. In its general features, soil, and productions it closely resembles the section of country already described. It constitutes the great tobacco-growing region of Maryland.

6. The leading geographical feature of the northwestern part of this section is the ledge of primitive rock which runs from the west bank of Potomac River, in Montgomery County, northeastwardly to the Susquehanna River, where it crosses the north line of the State. This ledge forms a natural boundary between the alluvial region and the mountainous district of Maryland.

7. The latter-named district—an elevated region—is traversed by various ridges of the Alleghanies, and in many parts is extremely wild and rugged. This section extends along the left bank of Potomac River to the western boundary of the State. From the eastern base of the primitive ledge, which is in fact a lower branch of the Alleghany chain, the surface gradually rises to the head waters of the Potomac River, 2,000 feet or more. This represents the rise from tide-water at Baltimore to the dividing grounds in Alleghany County, between the waters of the Potomac and those falling into Ohio River.

8. The principal rivers of Maryland are the Potomac, on its southern border; the Patuxent, the Severn, and the Patapsco, which flow from the western shore; the Susquehanna, which has its lower course in Maryland; the Elk, Chester, Choptank, Nanticoke, and Pocomoke, which flow from the eastern shore. The Potomac, common also to Virginia, is the most important of these. It has its rise in the recesses of the Alleghanies, and reaches the bay between Point Look-out and Smith's Point. This river is seven and a half miles wide at its mouth, and navigable for the largest ships to Washington, 300 miles. Above this point navigation is obstructed.

9. The Patuxent is the longest river within the State. It rises in the northern part of Montgomery County, and flows in a generally south direction to Chesapeake Bay, which it reaches 18 miles north of Point Look-out. It is navigable to Nottingham, 50 miles, for vessels of 250 tons. The Patapsco rises from South-East Mountain, and thence continues in a southeastern course to the bay. It is navigable for large vessels to Baltimore, 14 miles from its mouth, and for smaller vessels to Elkridge Landing, 8 miles farther up.

10. The Susquehanna is properly a river of Pennsylvania; it reaches the Chesapeake a few miles north of the mouth of Patapsco River.

11. The rivers from the eastern coast are navigable only in the lower part of their course, and, except the Pocomoke and Nanticoke, are rather the estuaries of numerous creeks than rivers in themselves.

12. Rising westward of the Alleghanies is the Youghiogeny, the only river of Maryland that does not empty its waters into Chesapeake Bay and the Atlantic. It flows northward into the Monongahela River, and thence its waters are carried through the Ohio and Mississippi to the Gulf of Mexico.

13. Chesapeake Bay is a noble sheet of water; its entrance, between Cape Charles and Cape Henry, is 15 miles wide, and opens from east to west; but on penetrating the land, it suddenly changes its direction, and stretches south and north over a distance of 180 miles, with a width in the southern part of 20 to 30 miles, and in the northern part of about 10 miles. It is throughout navigable for large vessels. The entire coast is deeply indented, and numerous islands line the shores.

14. The Atlantic coast presents a striking contrast when compared with that of the Chesapeake. Between the ocean and the mainland is a prolonged sandy beach, extending the whole length of that portion of Maryland facing the ocean. This sand beach varies from a few yards to a quarter of a mile or upward in breadth, and incloses a narrow shoal bay. Some outlets that formerly existed in this beach, and admitted the sea, are closed, and the waters of the bay have become comparatively fresh.

15. The whole lower regions of Maryland are referable to a recent geological period. The head of tide-water forms the limit of these new formations. On the western borders of this all the great rivers descend by falls and rapids, and here navigation is stayed, and large cities have been built. Westward is a belt of stratified metamorphic rocks, which ranges nearly parallel with the Atlantic coast. These rocks include gneiss, slates, granite, limestone, and serpentine. The beds of the rivers which pass through this region, which is from 20 to 30 miles broad, are in deeply-cleft valleys, with rounded or abrupt sides, that afford small tracks of alluvial soil. In an economic point of view these rocks are exceedingly valuable, and form an excellent and indestructible material for ordinary buildings, and yield iron ore, chrome, magnesia, and other useful minerals. West of Frederick these metamorphic rocks are covered with uncomformable beds of red sandstone. These consist of dark reddish-brown argillaceous sandstones, of crumbly brown shales, and coarse conglomerates. The beds occurring along the northwestern margin of the formation have frequently the character of coarse conglomerates, made up of pebbles derived from a great variety of rocks. The beds of rocks on the Potomac, which furnished the material from which the columns of the House of Representatives at Washington have been constructed, belong to this formation, and to this belong the most important localities of copper ore in Maryland.

16. Passing this formation, which occupies a narrow trough in the metamorphic rocks, and proceeding westward, we approach the great Alleghany Mountains. The ridges of this chain consist of a succession of concave and convex strata. The most important feature in their geology is the occurrence among the strata of the carboniferous formation, and its included beds of coal and ores of iron. The carboniferous strata composing the coal series of Cumberland dip on every side toward the center of the trough. The successive beds have been compared in shape to a great number of Indian canoes placed one within the other. The thickness of the coal formation is immense. The gross amount of coal in this basin has been estimated at 6,305,137,827 tons, two thirds of which are available without draining. The analysis of Cumberland coal shows it to be of the kind denominated dry or close burning, or intermediate between the fat coal of Pittsburg and the anthracite of Pennsylvania. Numerous other useful minerals exist, and these in process of time will become, like the coal and iron, important elements in the physical welfare of the State.

17. In 1850 Maryland contained 583,034 inhabitants, or 52.41 to the square mile, or 2.51 per cent. of the total population of the United States. This population was distributed as follows:

Counties.	Population.	County Seats.	Counties.	Population.	County Seats.	Counties.	Population.	County Seats.
Alleghany	22,769	Cumberland.	Charles	16,162	Port Tobacco.	Prince George	21,549	Up. Marlboro'.
Anne Arundel	32,893	Annapolis.	Dorchester	18,877	Cambridge.	Queen Anne	14,484	Centreville.
Baltimore	210,646	Baltimore.	Frederick	40,987	Frederick.	St. Mary's	13,698	Leonardstown
Calvert	9,646	Pr. Frederick.	Harford	19,256	Bel-Air.	Somerset	22,456	Princess Anne
Carolin	6,692	Denton.	Howard	(*new.*)	Ellicott's Mills	Talbot	13,811	Easton.
Carroll	20,616	Westminster.	Kent	11,386	Chestertown.	Washington	30,848	Hagerstown.
Cecil	18,939	Elkton.	Montgomery	15,860	Rockville.	Worcester	18,859	Snow Hill.

—and consisted of 87,384 families inhabiting 81,708 dwellings. Of the total population 417,943 (71.69 per cent.) were whites—211,187 males and 206,756 females, 74,723 free colored—35,192 males and 39,531 females, and 90,368 slaves—45,944 males and 44,424 females; and of the population (492,666) 438,916 (89.89 per cent.) were Americans, of whom 400,594 were born in this State; 53,288 (10.82 per cent.) foreigners, and 462 of origin not ascertained. In other States there were 127,799 natives of Maryland. In 1790 this State contained 319,728 inhabitants; in 1800, 341,548; in 1810, 380,546; in 1820, 407,350; in 1830, 447,040; in 1840, 470,019, and in 1850 (as above), 583,034. In 1855 the population was estimated at 639,580.

18. Of 124,876 free male persons over 15 years of age returned in the census of 1850 as engaged in industrial pursuits—47,616 were engaged in commerce, trade, manufactures, mechanic arts, and mining; 28,588 in agriculture; 32,108 in labor not agricultural; 67 in the army; 9,740 in sea and river navigation; 2,059 in law, medicine, and divinity; 2,442 in other pursuits requiring education; 963 in government civil service; 1,021 in domestic service, and 278 in unclassified occupations.

19. In industrial pursuits Maryland presents three essentially different localities: in the west its chief industry is coal and iron mining; in the south agriculture, and in the north manufacturing and commercial. Baltimore is the center of the latter district and Cumberland of the mining district. The whole productions of the State in 1850 averaged $83 85 *per capita*, and the value of manufactured products was twice that of the products of agriculture. As a commercial State, Maryland ranks next to Pennsylvania, and occupies the fifth place in the Union. It has every facility in its chief harbor, and since the completion of its public works, which open up the interior, its career has been one of increasing prosperity. Without these Baltimore could not have attained the important position it now enjoys.

20. In 1850 Maryland contained 21,860 farms and plantations, measuring 4,634,356 (improved 2,797,905 and unimproved 1,836,445) acres, or about two thirds the whole area of the State, and valued at $87,178,545. Thus each farm on the average contained 212 acres, and was valued at $3,988. The aggregate value of farming implements and machinery was $2,463,443, or $113 to each farm.

21. The principal cereal crops consist of Indian corn, wheat, and oats, and the tobacco crop is only exceeded by those of Virginia and Kentucky. The amounts (bushels) of the cereal crops in 1840 and 1850 were as follows:

1840	wheat,	3,345,680	rye,	723,577	oats,	3,584,211	corn,	8,233,086	barley,	3,594	buckwheat, 73,606
1850	"	4,494,680	"	226,014	"	2,242,151	"	10,749,856	"	745	" 103,671

—making in 1840 a total of 15,913,654 bushels, and in 1850 a total of 17,817,119 bushels. The tobacco crop in 1840 amounted to 24,816,012, and in 1850 to 21,407,497 pounds. The other principal crops in 1850 were as follows: potatoes (Irish 764,939 and sweet 208,993) 973,932 bushels; hay 157,956 tons; clover seed 15,217, and other grass seed 2,561 bushels; peas and beans 12,816 bushels, etc. The value of market-garden products was $200,869, and of orchard products $164,051.



TOBACCO PLANT.

22. In the same years the livestock of the State consisted of and numbered as follows:

1840	horses, etc.,	92,220	neat cattle,	225,714	sheep,	257,922	swine,	416,943			
1850	"	81,328	"	219,586	"	177,902	"	352,911			

—of the equines in 1850, 75,684 were horses and 5,644 asses and mules; and of the neat cattle 86,856 were milch cows, 34,135 working oxen, and 98,595 other cattle. The whole in 1850 was valued at $7,997,634. The products of animals consisted of—butter 3,806,160, and cheese 3,975 pounds; and the wool crop, which in 1840 amounted to 488,201 pounds, amounted in 1850 to 477,438 pounds. The value of animals slaughtered in the last census year was $1,954,800.

23. The total value of agricultural products in 1839–40 is stated at $14,015,665, and in 1849–50 at $16,296,199.

24. In 1850 there were in this State 3,708 manufacturing and other industrial establishments. These had an aggregate capital of $14,753,143, and gave employment to 22,641 males and 7,483 females. The value of raw material consumed in the year then ending was $17,326,734, and the amount paid as wages was $7,374,672; and the value of the products manufactured was $32,477,702. The statistics of the principal manufactures were as follows:

24 cotton mills	$2,236,000	capital	2,022	hands	$2,120,504	products.
38 woolen mills	244,000	"	362	"	295,140	"
18 pig iron works	1,420,000	"	1,370	"	1,056,400	"
16 cast "	359,000	"	761	"	685,000	"
17 wrought "	412,050	"	468	"	771,431	"
34 breweries and distilleries	247,100	"	131	"	328,750	"
116 tanneries	628,900	"	479	"	1,103,139	"
245 flouring mills	1,883,460	"	502	"	4,918,576	"
3 mining—coal*	605,000	"	210	"	196,675	"
21 " —iron	34,700	"	274	"	171,675	"

The manufactures of Maryland in 1810 produced goods to the value of $8,879,861; in 1820 to $5,027,336; in 1830 (no returns); in 1840 to $13,509,636, and in 1850 (as above) $32,477,702.

25. The value of goods manufactured in families in 1840 was $176,050, and in 1850 $111,828.

26. The value of exports to foreign countries in 1850 amounted to (domestic produce $6,589,481) $6,967,353, and in 1855 to (domestic produce $9,882,218) $10,395,984; and the value of foreign goods imported in the two years was $6,124,201 and $7,788,949. The shipping employed in the foreign trade in the years respectively was as follows:

	Cleared.		Entered.	
	1850.	1855.	1850.	1855.
American	89,296 tons	111,096 tons.	70,427 tons	121,337 tons.
Foreign	37,523 "	47,494 "	29,161 "	43,790 "
Total	126,819 "	158,590 "	99,588 "	165,127 "

The total shipping owned in the State in 1850 amounted to 193,087 tons, of which 90,669 tons were registered and 13,457 steam tonnage; and in 1855 to 234,785 tons, of which 112,262 tons were registered and 16,575 tons navigated by steam. The amount of shipping built in 1850 was 15,964 tons, and in 1855, 22,524 tons.

27. The following table exhibits the progress of the commerce and navigation of the State for the past 10 years:

Years.	Commerce.		Navigation.		Shipping Owned.		Shipping Built.
	Exports.	Imports.	Cleared.	Entered.	Registered.	Total.	
1846	$6,869,055	$4,042,915	— tons	— tons	— tons	— tons	— tons
1847	9,762,244	4,432,314	— "	— "	— "	— "	— "
1848	7,129,782	5,343,643	— "	— "	— "	— "	— "
1849	8,000,660	4,976,731	149,928 "	110,068 "	79,682 "	173,021 "	17,462 "
1850	6,967,353	6,124,201	99,588 "	126,819 "	90,669 "	193,087 "	15,964 "
1851	5,635,786	6,650,645	105,789 "	124,027 "	95,676 "	204,545 "	18,027 "
1852	6,667,861	6,719,986	128,243 "	128,021 "	96,346 "	206,243 "	18,158 "
1853	7,906,459	6,330,078	143,596 "	119,089 "	92,804 "	206,086 "	16,901 "
1854	11,782,692	6,787,552	174,207 "	156,448 "	103,970 "	220,208 "	20,353 "
1855	10,395,984	7,788,049	165,127 "	158,590 "	112,262 "	234,785 "	22,524 "

28. The domestic trade is extensive and is constantly being increased by the opening of new channels into the interior. Baltimore is now connected by railroad with Wheeling and Parkersburg on the Ohio, and will at no distant period be connected directly with Pittsburg, affording it ample access to the interior States; eastward with Philadelphia, New York, etc.; northward with Harrisburg and Williamsport, and southward with Washington and all the principal places in the south and southwest. The total length of railroad actually within the State in 1855 amounted to 430 miles, being one mile of road to every 25.9 square miles of surface or to every 1,534 of the total population. The Chesapeake and Ohio Canal follows the valley of the Potomac from Cumberland, the center of the western mining region, to Georgetown, D. C., and Alexandria, Va., and has a total length of 198 miles. A part of the Susquehanna and Tide-Water Canal is also within this State, and also a part of the Chesapeake and Delaware Canal. By means of these routes the products of the interior are collected on the Chesapeake, which, for the purposes of commerce, serves as a great inland lake, and which is connected by canals with the Delaware and Hudson rivers. The coasting trade is commensurate with the great facilities offered by these waters and their connections, and employs

* The following quantities of coal have been delivered from the mines of this State in the years named: 1842, 1,708 tons; 1843, 10,082 tons; 1844, 14,890 tons; 1845, 24,653 tons; 1846, 29,795 tons; 1847, 52,940 tons; 1848, 79,571 tons; 1849, 142,449 tons; 1850, 196,848 tons; 1851, 257,679 tons; 1852, 334,178 tons; 1853, 533,980 tons; 1854, 649,299 tons; 1855, 664,304 tons; 1856, 719,221 tons; 1857, 572,467 tons.

a large tonnage, and regular steam communication is maintained with all the great sea-board cities. Baltimore, its chief port, indeed, is one of the great receiving and distributing centers of the domestic as well as the foreign commerce of the Union.

29. In 1851 Maryland contained twenty-five and in 1856 thirty-one banking institutions, with aggregate capital amounting to $8,123,881 and $13,600,188 in the years respectively. The assets at the two periods consisted of—loans and discounts, $14,900,816 and $20,616,005; stocks, $760,417 and $644,600; real estate, $405,245 and $318,896; other investments, $768 and $698,890; dues from other banks, $1,173,200 and $1,649,166; notes of other banks, $965,796 and $1,482,744; specie funds $78,552 and $82,961, and specie, $2,709,699 and $3,398,101; and the liabilities were—circulation, $3,523,869 and $5,297,983; deposits, $5,838,766 and $8,370,345; dues to other banks, $1,923,206 and $1,924,756, and other liabilities, $9,895 and $938,108.

30. The government is based on the constitution ratified by the people on the 4th July, 1851, and which supplanted the original State constitution of 1776. This, the fundamental law of the State, provides that every free white male citizen of the United States 21 years of age, and who has resided in the State one year and in his precinct six months, is qualified to vote for all elective officers. The general election is held on the first Wednesday in November.

31. The legislative body is composed of a senate of 22 members, chosen for four years, and a house of delegates of 74 members, chosen from districts for two years. Members of both houses must have resided in the State for three years, and in the district for which elected for the last year thereof; and senators must be at least 24 and delegates 21 years of age. The legislature meets at Annapolis on the first Wednesday in January every second year.

32. The governor is chosen by a plurality of votes, and his term commencing on the second Wednesday of January, continues for four years. He must be 30 years of age, a citizen of the United States, and have resided in the State for five years, and in the district from which elected for the three years preceding election. For the purposes of electing the governor the State is divided into three gubernatorial districts—east, middle, and north. In case of death or disability of the governor the president of the senate, and after him the speaker of the house, succeeds to the executive, and holds until a governor is elected by the people. The executive officers, viz., the secretary of state, state treasurer, controller, etc., are appointed by the governor.

33. The judicial power of the State is vested in a court of appeals and circuit court. The court of appeals has appellate jurisdiction only. Its judges, four in number, are elected for 10 years from districts by the voters therein, and must be 30 years of age, citizens of five years' standing, and residents of the districts from which elected. The governor, with the advice and consent of the senate, designates one of the four judges as chief-justice. For circuit court purposes the State is divided into eight districts, each of which elects a judge for 10 years, who must be a citizen of the United States, and have resided in his respective district for the two years preceding. Baltimore City forms the fifth district, and has three courts, each with a separate judge, viz., the superior, common pleas, and criminal courts. Each county and Baltimore City elects three persons as judges of the orphans' court, to hold office for four years; a register of wills for six years; justices of the peace, two sheriffs, and constables, for two years. Attorneys for the commonwealth are chosen in each county by the people for four years.

34. The revenues of Maryland are derived chiefly from direct and specific taxation, licenses, lotteries, and interest and dividends on investments, etc. In the fiscal years 1850 and 1855 the total resources of the treasury amounted to $1,712,879 and $1,823,444, and the disbursements for the same years to $1,467,470 and $1,230,508. The public debt amounted in 1855 to the nominal sum of $14,949,588; but of this $3,676,065 were held by the sinking fund, and including this the sum of $5,269,856 was the whole amount on which the State paid interest. The larger portion of the debt, viz., $9,679,732, consisted of moneys invested in productive public works, the interest or dividends on which were regularly paid. Thus the whole productive property of the State amounted in 1855 to $13,355,797. The State also possesses property at present unproductive valued at $13,642,446, and a school fund amounting to $181,167. The valuation of taxable property in the State in 1850 was $196,603,625, and in 1855 to $243,933,446.

35. The number of children returned by the census of 1850 as attending school was 62,063 (of which 1,616 were free colored), or one in every 7.94 of the free population. The statistics of the educational institutions of the State on the 1st June of the same year were as follows:

Institutions.	Numbers.	Teachers.	Scholars.	Income.
Primary and public schools	898	986	33,111	$218,836
Academies and private schools	223	503	10,787	232,341
Universities and colleges	13	98	1,127	113,714

—making a total of 1,134 schools, 1,587 teachers, and 45,025 scholars, with an annual income amounting to $564,891. The total of persons over 20 years of age who could not read and write was 41,877, of which number 38,426 were natives and 3,451 foreigners, and 20,815 were white persons and 21,062 free colored persons.

36. The principal collegiate and professional institutions in the State, with their statistical condition in 1855, are as follows:

Institutions.	Location.	Founded.	Teachers.	Students.	Libraries.
Washington College	Chestertown	1783	5	70	1,500
St. John's College	Annapolis	1784	6	43	3,500
St. Mary's College	Baltimore	1799	20	—	22,000
St. Charles College	Ellicott's Mills	1805	4	122	600
Mount St. Mary's College	Emmettsburg	1830	24	126	4,500
College of St. James	Washington Co.	1842	14	38	5,600
St. John's College	Frederick City	1850	6	60	3,000
St. Mary's Theolog. Seminary	Baltimore	1791	6	27	10,000
Mt. St. Mary's Theol. Seminary	Emmettsburg	1830	—	—	—
Novitiate of Society of Jesus	Frederick City	—	—	—	—
St. Charles Seminary	Ellicott's Mills	1805	—	—	—
Medical Depart. Univer. of Md.	Baltimore	1807	6	100	—
Washington Medical College	"	1827	6	25	—
College of Dental Surgery	"	1840	5	50	—

37. The number of churches of all denominations in 1850 was 909, with accommodations for 370,465 persons, and owning property to the value of $3,947,884. The Methodist denomination is by far the most numerous, constituting one half the whole population; next in numbers is the Episcopal, claiming one sixth the whole, and the Roman Catholic numbering about a tenth. After these in point of numbers come the Presbyterians, Lutherans, Baptists, and German Reformed, holding from 25,000 to 15,000 sittings, and the Friends with about one half the latter number. The Jews have three synagogues at Baltimore, and the Unitarians and Universalists are in small numbers.

38. Baltimore is the metropolitan city, and the largest and chief commercial place in the State: Annapolis is the capital. The other considerable towns are Cumberland, Frederick City, Ellicott's Mills, Hagerstown, Havre de Grace, Port Deposit, Easton, Elkton, etc.

39. Baltimore, in point of population the third city of the Union, is situated on a bay on the north side of the Patapsco River, 12 miles from its entrance into Chesapeake Bay, and 200 miles from the ocean by ship channel. Latitude 39° 17′ 48″, and longitude 76° 36′ 39″. The city is pleasantly situated on a slightly undulating ground, and some of the elevations in the vicinity command fine scenery. As laid out, it includes four miles square, and is built around the bay and harbor. The streets are regular and spacious, the buildings mostly of brick, and several of them exhibit beautiful architectural combinations. Jones' Falls, a small stream from the north, divides the city into two parts, and over it are extended several handsome stone and wooden bridges. The harbor is capacious and safe, and consists of an inner basin and an outer harbor—the latter at Fell's Point, and accessible to the largest ships. The entrance is commanded by Fort McHenry.



40. The principal public buildings are the City Hall, the Court House, the State Penitentiary, County Prison and House of Refuge, the Merchants' Exchange, the Roman Catholic Cathedral (the finest in the Union), and numerous buildings devoted to collegiate, academic, and other literary and educational purposes. In 1850 there were in the city 4 colleges, 67 academies, and 71 primary and public schools. The University, St. Mary's College, and the Washington Medical College are the principal of these institutions. In the same year there were 99 churches of all denominations. The monuments of Baltimore and its numerous fountains are distinguishing features in the adornments of the city.



CITY OF BALTIMORE.

41. As a commercial city, Baltimore is only second to New Orleans among the Southern ports. It has an immense foreign trade, chiefly with Brazil and the West Indies, and also with continental Europe. Its coasting and inland trades are also very extensive, and, since the completion of the Baltimore and Ohio Railroad to the West, it has become the great depôt of the Cumberland coal regions. The same road has opened to it a large share of Western trade. The Northern Central Railroad brings down the coal of central Pennsylvania, and with its northern connections brings the city into direct communication with the commercial ports of lakes Ontario and Erie. Baltimore has also an additional Western trade, *via* the Pennsylvania Railroad. Otherwise it has direct railroad communication with the east and northeast and with the south and southwest. Its steamship connections extend to all the ports between Boston and Charleston, inclusive. These great routes of communication unite the city with every part of the Union, and insure a rapid and certain transit to its ever-increasing trade. The principal exports are flour and tobacco; for the first it is one of the principal, and for the latter the chief market of the world. The shipping owned in the port in 1850 amounted to 140,019 tons, and in 1855 to 183,108 tons; and the shipping built in the years next previous to those dates amounted respectively to 11,683 tons and 18,816 tons. The vessels built here under the name of Baltimore clippers are remarkable for their speed, and, as privateers, made a great figure in the last war with Great Britain.

42. As a manufacturing city, Baltimore has long been conspicuous, and at the present day ranks among the great industrial communities of the Union. In 1850 it had 2,243 several establishments, employing 20,486 hands and a capital of $6,541,922; and producing goods to the value of $20,416,511 annually. Since this date its manufactures have largely increased, and, if commensurately with the population, the sum of products would, at the present time, be about 27 or 28 million dollars annually. Of the establishments in 1850, 71 were blacksmith, 356 boot and shoe, 111 cabinet-ware, 120 cigar, 238 clothing, 26 coach and carriage, 10 brass founding, 13 iron founding, 10 gunsmith, 12 machinery, 10 piano-forte, 17 printing and publishing, 24 sail-making, 21 ship-building, 16 ship-smith, 31 silversmith, 19 stove, 15 weaving, 21 wheel-wright, 10 whitesmith, etc.—the remainder various and of common interest. Within and around the city there are more than 60 flouring-mills, chiefly on the Patapsco and Jones' Falls. Baltimore has a Board of Trade and numerous banks and insurance offices.

43. In 1850 the total valuation of taxable property was $80,237,960, and in 1855, $106,770,000. The corporate debt, chiefly contracted in providing for internal improvements, amounted to $11,672,889. The city is bountifully supplied with pure and wholesome water from public springs and fountains, but derives its great supply from an elevated part of Jones' Falls, from which the water is conducted through an aqueduct to a reservoir, whence it is distributed through pipes.

44. Baltimore was first laid out as a town in 1729, and in 1765 contained only 50 houses. In 1797 it received a city charter. With few interruptions, but with great disabilities, its course has since been onward; and since the completion of its great works of internal improvement its increase in population and wealth has been exceedingly rapid. In 1790 the city contained 13,530 inhabitants; in 1800, 26,514; in 1810, 46,455; in 1820, 62,738; in 1830, 80,620; in 1840, 102,513; in 1850, 169,054; and in 1855, 218,316.

45. Annapolis, the State capital, is a sea-port on the south bank of the Severn River, two miles from its entrance into Chesapeake Bay, and 26 miles south-by-east Baltimore. Latitude 38° 58′ 40″, and longitude 76° 29′ 9″. It is connected by railroad with Washington and Baltimore, but is a place of little trade, and as a port is only visited by coasting vessels. The principal buildings are the State House, the United States Naval Academy, and St. John's College, formerly a Roman Catholic, but now an Episcopal, institution. The Naval Academy was first established here in 1815, and has usually from 100 to 120 students qualifying themselves to become officers in the national navy. Population (1850) 3,011.

46. Ellicott's Mills, on the Patapsco, 12 miles above Baltimore, and on the line of the Baltimore and Ohio Railroad, is the great center of the flour-mills of the Baltimore district, and in 1850 contained 1,059 inhabitants. The scenery for miles around is remarkably beautiful. Port Tobacco, southwest of Annapolis, and at the head of a small bay which sets up from the Potomac River, was formerly of some importance, but at the present time has scarcely 300 inhabitants. As its name imports, its chief trade is in tobacco, the staple product of the peninsula between Chesapeake Bay and the Potomac. Otherwise than this there are no towns south of Annapolis requiring notice.

47. Toward the northeast, and at the mouth of the Susquehanna, is Havre de Grace. Here the Philadelphia, Wilmington and Baltimore Railroad crosses the river and the Tide-Water Canal terminates, making it the depôt of a considerable trade, and in the fishing season many of the inhabitants engage in the fisheries of the bay. Population (1850) 1,336. In 1814 Havre was sacked and burned by the British under Admiral Cockburn. Port Deposit, on the opposite shore of the Susquehanna, six miles up the river, and at its lowest falls, is eligibly situated for commerce, and is the southern depôt of the Susquehanna lumber trade. In the vicinity there are large quarries of granite, which are successfully worked. Population about 500. A branch of the Philadelphia, Wilmington and Baltimore Railroad comes up to this place.

48. The other towns of the Eastern Shore are—Elkton, at the junction of the branches of Elk River, and on the Philadelphia, Wilmington and Baltimore Railroad, a thriving town; Frenchtown, a little south of Elkton, a landing-place and station on the Newcastle and Frenchtown Railroad, which connects the steam navigation of the Chesapeake and that of the Delaware; Delaware City, at the outlet of the Delaware and Maryland Canal; Chestertown, a small port on Chester River, 30 miles from Chesapeake Bay, and the seat of Washington College; Easton, on an affluent of the Choptank, and the largest town on the Eastern Shore, etc. These and other towns in this region are of local importance, but none of them contain above 1,500 inhabitants.

49. Frederick City is situated on Carroll Creek, a feeder of the Monocacy, and is connected with the Baltimore and Ohio Railroad by a branch three miles long. It ranks as the second city in the State, and being in the center of a rich agricultural country, has become a market of great importance. Population (1850) 6,028. It is one of the chief centers of Roman Catholic institutions in the State. Hagerstown, about 20 miles northwest, is also a thriving agricultural town, and is connected with the Pennsylvania railroad system by the Franklin Railroad. Population 3,884.

50. The only other town of note in western Maryland is Cumberland, the center of the Alleghany mining districts. It is situated on the north bank of the Potomac, and on the line



CUMBERLAND AND THE SITE OF OLD FORT CUMBERLAND.

of the Baltimore and Ohio Railroad, 178 miles from Baltimore, and at the present terminus of the Chesapeake and Ohio Canal. The Pittsburg and Connellsville Railroad will also ultimately come in at this point. The principal materials of the trade of Cumberland are coal and iron, which so abound in this vicinity, and which are brought to this depôt from the mines by several branch railroads. The coal of this region is semi-bituminous, and is largely consumed by steamers; and, since the opening of the lines of transit to Baltimore and Alexandria, it has been extensively shipped for those ports. The total quantity sent to market in 1856 was 709,329 tons, of which quantity 503,129 tons were brought to market by the Baltimore and Ohio Railroad, and 206,200 tons by the Chesapeake and Ohio Canal. In 1842 only 1,708 tons were mined. Cumberland has also a large general trade. Population (1850) 6,067; in 1855 about 10,000 or 12,000.

51. Maryland was originally settled by Roman Catholics. The territory was granted to Lord Baltimore in 1633, and the first colonists, under Leonard Calvert as governor, arrived at St. Mary's early in 1634. These consisted of about 200 persons, who sought America as a refuge from religious persecution at home. Here they instituted toleration to all creeds, and hence their numbers were rapidly increased. The colony prospered, interrupted only by occasional irruptions of the Indians, until the accession of Cromwell to power in England, when the Baltimores were superseded in the government. The Restoration reversed this attitude of the parties, and restored the proprietary. Again, in 1688, the proprietary was set aside, but was again reinstated in 1716, and continued in power until the commencement of the American Revolution, when the people framed a State constitution. In the subsequent wars the country suffered much from hostile marauders, and in the wars of 1812 her shores were barbarously ravaged. Since the latter period Maryland has been highly prosperous, and may now be considered as one of the most wealthy and industrious of the Southern States.

DISTRICT OF COLUMBIA.



PRESIDENT'S RECEPTION.

1. The District of Columbia, seat of the general government of the United States, is situated on the Maryland bank of the Potomac, 124 miles above the mouth of the river, and contains about 60 square miles.

2. The surface is diversified by hills and valleys, and in some parts the hills are sufficiently high to command extensive views of the surrounding country. The soil is of average fertility The Potomac washes its western boundary; and two of its tributaries—Rock Creek, from the north, and which separates Washington from Georgetown, and Eastern Branch, from the northeast, on the north bank of which Washington is built—disembogue within the District. The Potomac also receives within its limits several smaller affluents, one of which, the Tiber, flows through the capital. The capacities of the Potomac are sufficient for ships of the largest tonnage. The climate is moist and warm, and in consequence of local miasms not very salubrious.

3. The District comprises the county of Washington, which in 1850 contained 51,687 inhabitants, viz.: 37,941 whites, 10,059 free colored, and 3,687 slaves. The population in 1855 was estimated at 60,857.

4. As originally laid out, the District contained 100 square miles, and included what is now the county of Alexandria in Virginia. The population of the District thus constituted was in 1800, 14,093; in 1810, 24,023; in 1820, 33,039; in 1830, 39,834; and in 1840, 43,712. Had the same organization existed in 1850, the District would have contained 61,695 inhabitants.

5. Of the free population (1850), 42,956 (89.49 per cent.) were Americans, of which number 24,967 were natives of the District, and 17,989 natives of other sections of the Union; 4,967 were of foreign birth, and 77 of unknown origin. The number of free persons born in the District and residing in other sections was 7,269.

6. The employed free male population over 15 years of age numbered 11,209, of which 6,128 were engaged in commerce, trade, manufactures, mechanic arts, etc., 421 in agriculture, 2,535 in labor not agricultural, 91 in the army, 186 in sea and river navigation, 330 in law, medicine, and divinity, 436 in other pursuits requiring education, 559 in government civil service, 507 in domestic service, and 16 in other employments.

7. The number of farms in the District in 1850 was 267, covering 27,454 acres or 72.5 per cent. of the whole surface. Of this 16,267 acres were improved and 11,187 unimproved, and the whole was valued at $1,730,460, while the value of implements and machinery thereon was $40,220. Thus the average size of farms was 103 acres, and the average value of each $6,632.

8. The cereal crops consisted of—wheat 17,370, rye 5,509, oats 8,134, Indian corn 65,230, barley 75, and buckwheat 378 bushels. The potato crop amounted to 31,789 (28,292 Irish and 3,497 sweet) bushels; that of beans and peas to 7,754 bushels, and that of hay to 2,279 tons. The produce of market gardens was valued at $67,222, and of orchards at $14,843.

9. The livestock upon farms in the same year consisted of—horses 824, asses and mules 57, milch cows 813, working oxen 104, other cattle 123, sheep 150, and swine 1,635; and in the aggregate was valued at $71,643, and during the year preceding, the value of animals slaughtered amounted to $9,038.

10. The total value of agricultural products in 1840 was $138,425, and in 1850, $193,601.

11. The number of establishments engaged in manufactures, mining, and the mechanic arts in 1850 was 395, with an aggregate capital of $888,965, and giving employment to 2,176 hands. The value of raw material, fuel, etc., consumed by these in the year had been

$1,339,146, the cost of labor $616,152, and the value of products $2,493,008. In 1810 the value of manufactured products amounted to $930,650, in 1820 to $704,620, in 1830 (no returns), in 1840 to $1,598,430, and in 1850 (as above) to $2,493,008. The value of goods manufactured in families in 1840 was $1,500, and in 1850 $2,075.

12. Georgetown is the only port of entry. In the years ending 30th June 1850 and 1855, the value of exports to foreign countries was $80,388 and $36,143, and of imports $59,819 and $24,699. The shipping cleared in the same years was 1,720 and 2,444 tons, and the shipping entered 1,414 and 2,185 tons. The shipping owned in 1840 amounted to (1,949 steam) 17,010 tons, and in 1850 (4,128 steam) 34,530 tons; and the shipping built amounted to 288 and 1,668 tons. The principal foreign trade of the District is with the West Indies.

13. It can not be supposed that the District produces any surplus for exportation, and hence its domestic trade consists almost entirely in the transportation of supplies for consumption within its own borders. The means are ample both by water and land. Almost the whole of its tonnage is employed in the coasting trade, and steamers ply regularly in connection with the Southern railroads and to and from the principal places on the river. The District indeed is a principal entrepôt of Southern travel, being the terminus of a branch railroad from Baltimore, and the central point of other roads completed and in progress, pointing to the West and South, having their actual termini at Alexandria, to which a short line has been lately opened from Washington; and the Chesapeake and Ohio Canal which terminates at Alexandria crosses the Potomac at Georgetown. These avenues give it access to every part of the Union, and accommodate the large numbers of persons who annually visit the seat of the national government, and fulfill the further obligation of supplying them with the necessaries of life during their sojourn.

14. The government of the District is under the sole authority of the National Congress, and its expenses are defrayed from the general treasury. It has no representative in Congress (though it is probable that its demands for such will at no distant period be complied with), nor any voice in the election of the President of the Union. The fundamental laws besides the constitution of the United States to which its government is subject, are those which were in force in Maryland at the period of the cession of its jurisdiction to the federal authorities. The local judiciary consists of a circuit and a criminal court, and an orphan's court for the county.



NATIONAL OBSERVATORY.

15. The total number of persons returned as attending school in 1850 was 6,570 or one in every 7.3 of the total free population. The general statistics of schools on the 1st June of that year exhibit the following figures:

Classes of Schools.	Number.	Teachers.	Scholars.	Income.
Primary and public schools	22	34	2,169	$14,232
Academies and private schools	47	126	2,333	84,040
Universities and colleges	2	36	218	24,000

—making a total of 71 schools, 196 teachers, and 4,720 scholars, and an annual income of $122,272.

16. The collegiate and professional institutions of the District are the Columbia and Georgetown colleges, and the medical school attached to each. The condition of these in 1855 was as follows:

Institutions.	Location.	Founded.	Professors.	Students.	Libraries.
Columbia College	Washington	1821	8	70	8,000
Georgetown College	Georgetown	1792	18	256	25,000
National Medical College	(Columbia College)	1821	7	17	Col. Lib.
Medical Department	(Georgetown College)	1850	8	26	"

17. The most numerous religious denomination in the District is the Methodist, which absorbs a full third of the whole population. The Episcopal and Roman Catholic denominations include each one fifth of the population, and the Baptist one sixth. The Lutherans, Unitarians, Friends, etc., are in smaller proportions. The whole number of churches in 1850 was 46, with 34,130 sittings, and valued at $363,000.

18. Washington, the federal capital and seat of government, is situate on the left bank of the Potomac, between Rock River and the Anacostia or Eastern Branch, 300 miles from the ocean. Latitude 38° 56′ north, and longitude 77° 2′ west of Greenwich. The site has an undulating surface, and is surrounded by an amphitheater of hills of moderate elevation, covered with trees and shrubbery, and commanding from many points fine views of the picturesque scenery of the "River of Swans." The environs abound in the most eligible sites for villas and country residences.

19. The city extends northwest and southeast about four miles and a half, and east and south about two miles and a half. The streets run north and south, and east and west, crossing at right angles, with the exception of fifteen, which point to the States of which they severally bear the names. The public buildings occupy the most conspicuous sites. The Capitol commands the streets called Maryland, Delaware, and Pennsylvania avenues, and the President's Mansion, Pennsylvania, Vermont, New York, and Connecticut avenues. Pennsylvania Avenue stretches from Georgetown to the Eastern Branch, about four miles, and between the Capitol and Mansion is 160 feet wide. The other streets have a width of 70 and 100 feet; but on the whole the surface (about 3,016 acres) is as yet very little built upon. Washington, indeed, has been not inaptly described as a "city of magnificent distances." The other public buildings are—the edifice of the State Department, the Treasury Buildings, the War and Navy Offices, the Offices of the Interior Department, the General Post Office, the National Observatory, the Arsenal and Navy Yard, the Smithsonian Institution, the Coast Survey Office, the City Hall, several colleges, etc.

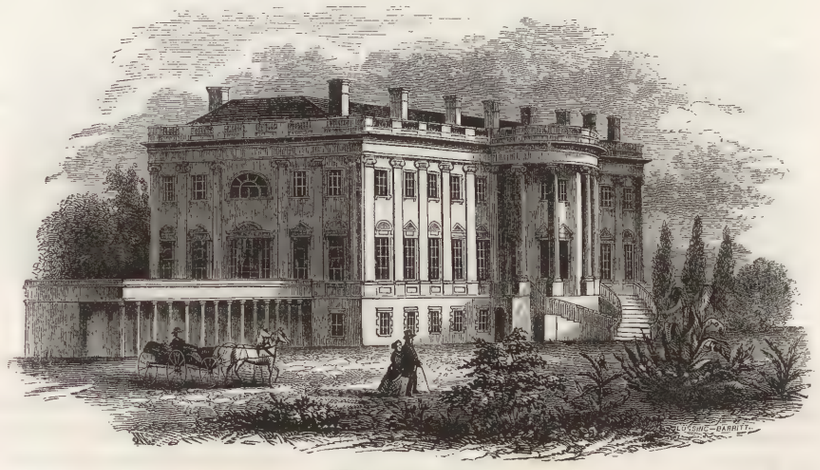
20. The Capitol is situate on an area of 30 acres, inclosed by an iron fence, and is so elevated as to command an extensive view. Its erection was commenced in 1793; but the works were suspended during the embargo, and much that had been accomplished was subsequently destroyed by the British, so that in 1815 it was found necessary to reconstruct the whole edifice. The exterior exhibits a rusticated basement of the height of the first story, and the two others are comprised in a Corinthian elevation of pilasters and columns. These columns, which are 30 feet in height, form an advancing portico on the east 160 feet in extent, the center of which is crowned with a pediment of 80 feet span; while the receding loggia, 100 feet in extent, distinguishes the center of the west front. The building is surrounded by a balustrade of stone, and covered with a lofty dome in the center and a low dome on each wing. The dimensions of the building are: length of front 352 feet 4 inches, depth of wings 121 feet 6 inches, and height to top of central dome 145 feet. The cost has been about two million dollars. Two additional wings are now being added, each 238 by 140 feet, and when completed the Capitol, including the space between the wings, will cover



NATIONAL CAPITOL.

an area of four acres and a half. The corner-stone of the extension was laid on the 1st July, 1851. The Senate Chamber is in the second story of the north wing, of a semicircular form, 75 feet long and 45 feet high. The walls are partially covered with drapery, and it is adorned by a fine portrait of Washington. The Hall of Representatives is also of a semicircular form, but much larger than the Senate Chamber. It is in the second story of the south wing, and is 96 feet long and 60 feet high, and surrounded by 24 breccia columns, with capitals of white marble and surmounting a base of freestone. The dome is painted in imitation of the Pantheon at Rome. The Rotunda occupies the center of the building, and is 96 feet in diameter and in height, and is adorned with bas-relievos, sculpture, and paintings illustrative of the early history of the country. Besides these apartments the Capitol contains the Congressional Library, the Supreme Court rooms, and numerous offices connected with congressional business. The Capitol grounds are not only extensive, but are kept in the very neatest order, constituting one of the pleasantest promenades in the metropolis. They are adorned with a great variety of American trees; and fountains and basins of pure water enliven them in various parts, and their interest is enhanced by groups of historical statuary.

21. The Executive Mansion stands about one mile from the Capitol, and occupies the center of a plot of 20 acres. The grounds are partially laid out in gardens, etc., but are still in an unfinished state. The Mansion has a front of 170 feet and is 86 feet deep, and is built of white freestone, with Ionic pilasters, comprehending two lofty stories crowned with a balustrade. The north front is ornamented with a lofty portico of four Ionic columns in front, and projecting with three columns. The outer columniation is for carriages and the

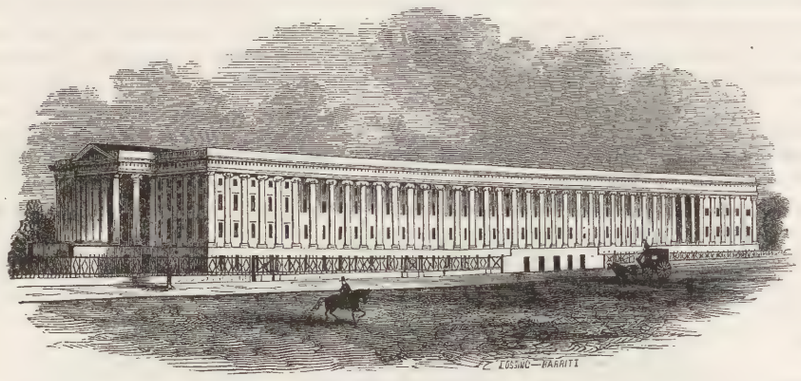


EXECUTIVE MANSION.

middle for foot passengers—the steps from both leading to a broad platform in front of the door of entrance. The garden front has a rusticated basement. The interior arrangements are elegant and convenient, and well adapted to the various purposes for which the building was designed. In the center of a small square in front of the Mansion stands a bronze statue of Thomas Jefferson, and in Lafayette Square, on the opposite side of Pennsylvania Avenue, is seen the equestrian statue of General Jackson.

22. The buildings of the State Department, to the northeast of the Executive Mansion, and within the same inclosure, are plain and of brick. They are 160 feet long and 55 feet wide, two stories high, and contain in all 32 rooms. In this building all the diplomatic business of the country is transacted.

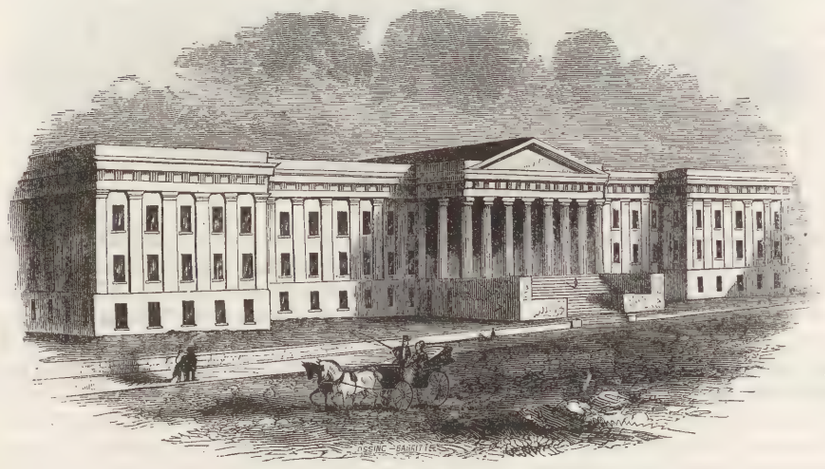
23. The Treasury buildings stand at the eastern extremity of the President's Square, so



TREASURY BUILDINGS.

called, and is a stone edifice 459 feet long and 170 feet wide. In front it has an imposing colonnade. The War Office occupies the northwest corner of the square, and is precisely similar in design to the State Department buildings. The buildings occupied by the Navy Department lie directly west of the President's Mansion, and in the War Office buildings.

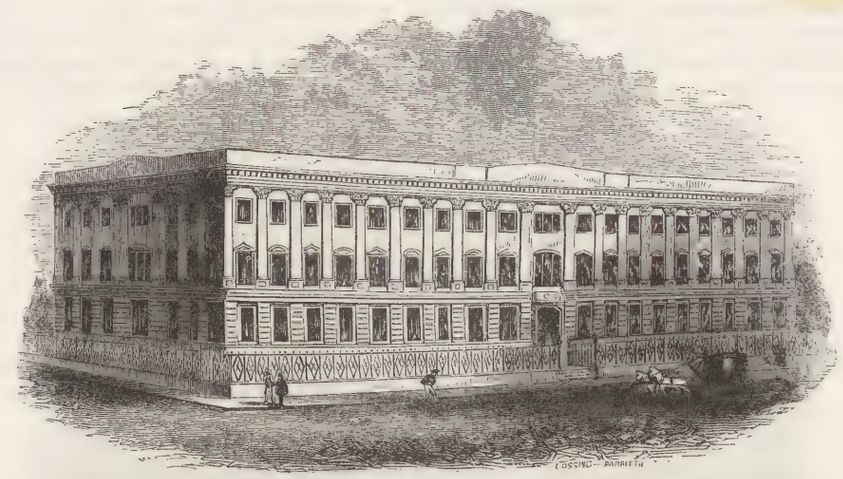
24. The Interior Department, half a mile from the Mansion, has very extensive buildings,



PATENT OFFICE.

but as yet these are unfinished; the Patent Office, one of its branches, however, is completed, and constitutes one of the most important and interesting buildings in Washington.

25. The General Post Office occupies a central position near the Department of the Interior. It is of white marble and after the Corinthian order, three stories high, and in extent 204 by 102 feet. The attorney-general occupies apartments in the Treasury buildings. In these several buildings the whole administrative business of the nation is transacted.



GENERAL POST OFFICE.

26. The National Observatory is situate on the banks of the Potomac, toward Georgetown. It is connected with the Naval Department, and the force employed at it consists principally of naval officers. Besides the ordinary duties of the establishment, the employees have the custody of all the nautical books, charts, and instruments belonging to the navy. Here, also, are conducted the celebrated researches connected with the "wind and current charts." As an observatory, it ranks next to those of St. Petersburg and Greenwich, and its longitude (77° 2′ 48″ west from Greenwich) is the prime meridian of American geographers.

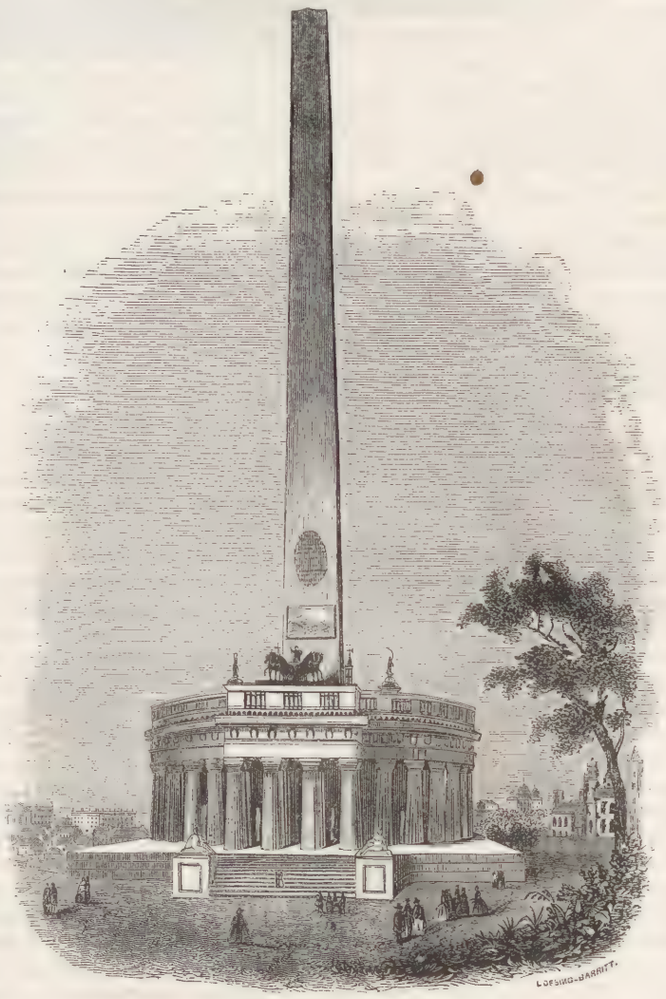
27. The Arsenal occupies a fine position on Greenleaf's Point, at the junction of the Anacostia with the Potomac, and on this account it enjoys great facilities for receiving and shipping ordnance and other military stores. The machinery employed in this establishment is very complete, and it contains an extensive model armory of both new and old implements of destruction. In the "gun lot" are seen innumerable trophies brought from our battle-fields—Saratoga, Yorktown, Niagara, and Mexico. The Navy Yard is located on the Anacostia, and covers an area of about 20 acres, inclosed by a substantial brick wall. The mechanical operations of this establishment are various and extensive, and the skill of the workmen and the excellence of the materials employed have been satisfactorily tested on every sea. On the western side of the yard is the pyrotechnical laboratory. The grounds are beautifully laid out, and the whole preserved in excellent order.

28. The Smithsonian Institution has a noble edifice, and is unquestionably one of the greatest attractions of the metropolis. It was founded upon a bequest of more than half a



SMITHSONIAN INSTITUTE.

million dollars made to the United States by an Englishman named John Smithson. The object of the bequest, according to his will, was "to found at Washington, under the name of the Smithsonian Institution, an establishment for the increase and diffusion of knowledge among men." On the 1st July, 1836, Congress solemnly accepted the trust, but it was not before 1846 that the Institution was established. It is situated on the mall below the Capitol, and has extensive grounds laid out into gardens, etc. The style of the building is Romanesque, the material a reddish freestone, and its dimensions—length 450 feet, and width 140 feet, and it has nine towers, varying from 75 to 150 feet in height. The library room is capable of holding 100,000 volumes, and its lecture-room, museum, gallery of art, and laboratories are also capacious and appropriate for their several uses.



WASHINGTON MONUMENT.

29. The National Medical College and the Columbia College are the highest schools of the capital, and were incorporated by Congress. The Columbia College is beautifully situated on an eminence, and is a fine brick edifice. It has a good library, a valuable philosophical apparatus, and other means and facilities for pursuing a liberal course of studies. The National Institute was founded in 1840, and has for its object the promotion of general science. It holds its meetings and

has its head-quarters at the Patent Office. Although a recent foundation it has already a library of 5,000 volumes, with a rich collection of maps, charts, manuscripts, medals, coins, etc. Public education is provided for in free and primary schools, and select schools and seminaries are numerous.

30. Among the artistic adornments of the capital the Washington Monument, though still unfinished, occupies the first place. It stands on the mall between the Executive Mansion and the Potomac, and embraces the idea of a grand circular colonnaded building, 250 feet in diameter and 100 feet high, from which springs an obelisk shaft 70 feet at the base and 500 feet high. The vast rotunda forming the grand base of the monument is surrounded by 30 columns of massive proportions, and surmounted by an entablature and balustrade. Over the columns severally are sculptured the escutcheon of each of the United States, while over the central portico are emblazoned the coat of arms of the Union. Around the rotunda are stationed statues of the signers of the Declaration of Independence, and in niches statues of the fathers of the Revolution; and directly opposite to the entrance is placed the statue of Washington himself. The interior of the shaft is embellished with a great variety of inscriptions and bas-relievos, and in the center is the tomb of the great chief. The whole forms a most majestic edifice, and is destined to testify to future generations the veneration of a grateful people for the patriot whose deeds shed such a halo of glory over the American name.

31. There is no want of excellent hotels in Washington. These are a necessary concomitant in a city having so large a transient population; and at these the families of many members of Congress reside during the annual sessions. With one or two unimportant exceptions they are all located on Pennsylvania Avenue. Respectable boarding-houses are also numerous, and, indeed, a very large portion of the permanent residents derive their material means from this sort of industrial pursuit. But Washington is remarkably deficient in places of amusement, and as a consequence the temporary sojourner, lacking more innocent pastimes, resorts too often to the gaming-table and drinking-saloon.

32. In 1850 the population of the city was 40,001. When Congress is assembled many thousands are added from all parts of the Union. In 1800 the population was 3,210; in 1810, 8,208; in 1820, 13,247; in 1830, 18,827; and in 1840, 23,364.

33. Georgetown is divided from Washington by Rock Creek. The heights of Georgetown are lofty eminences overlooking the city from the north and west, and along these are many splendid villas and extensive garden plots. The city below the heights presents many objects of attraction—its ancient college, its nunneries, and the splendid aqueduct which carries the canal over the Potomac. The college buildings are spacious, and contain a library of 25,000 volumes. The Nunnery or Convent of the Visitation is situate on the heights, and adjacent thereto are the bishop's residence, an elegant chapel, etc., and a part of the grounds are laid out as a botanic garden. Among other places of note is the Oak Hill Cemetery, with a beautiful chapel and porter's lodge. This was laid out in 1849. Georgetown was formerly a port of some note and considerable trade, and is still a thriving and busy place. It is the only port of the District. In 1810 its population was 4,988; in 1820, 7,360; in 1830, 8,441; in 1840, 7,312; and in 1850, 8,366.

34. The District of Columbia was established as the permanent seat of the federal government in 1791. The site included a part of Maryland, which was ceded to the United States on the 23d December, 1788, and a part of Virginia, which was ceded on the 3d December, 1789. The two portions comprised a square of 10 miles or 100 square miles. The erection of the Capitol was commenced in 1793, and the government, which had hitherto been domiciled at Philadelphia, removed to the District in 1800. The progress of the District in population and wealth, as also in magnificence, has been commensurate with the progress of the country generally. That part of the District ceded by Virginia was retroceded in 1846.

STATE OF VIRGINIA.



MOUNT VERNON.

1. Virginia, the largest of the Atlantic States, is situated between the latitudes 36° 30′ and 39° 43′ north, and the longitudes 75° 10′ and 83° 33′ west. This State is bounded on the north by Pennsylvania and Maryland, on the east by Maryland and the Atlantic Ocean, on the south by North Carolina and Tennessee, and on the west by Kentucky and the Ohio River, which latter separates Virginia from the State of Ohio.

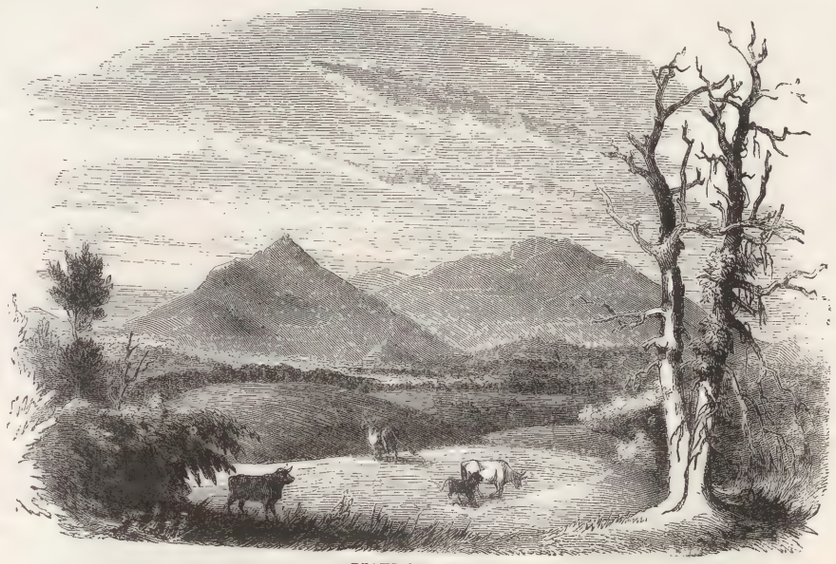
2. The greatest length of the State east and west measured on the southern boundary, is 432 miles; but the general length does not exceed 360 miles, and the general breadth north and south is about 225 miles. In the northwest, a narrow tongue of land between the western line of Pennsylvania and the Ohio River projects beyond the general limit of the State, and as far north as 40° 38′ north latitude. The area included within these limits is estimated at 61,352 square miles or 2.1 per cent. of the whole superficies of the United States.

3. The shore line of Virginia toward the ocean has an absolute length of only 116 miles; but including the shores of bays and all irregularities, the length is 348 miles, and if the islands be included, 654 miles. This gives one mile of coast to every 93.9 square miles of surface.

4. Virginia is naturally divided into four districts or sections: viz., the Tide-Water, the Piedmont, the Valley, and the Trans-Alleghany sections. These form also civil divisions.

5. The "Tide-Water section" is similar to the whole Atlantic coast of the Southern United States—a low, sandy plain, interspersed with marshes, overgrown with pitch-pine, and very unhealthy. This tract has a width of 110 to 130 miles, and extends up to the lower falls of the rivers.

6. The "Piedmont section" is that belt of country between the head of tide-water and the Blue Ridge. The surface is uneven, and becomes more and more so as the mountains are approached. The soil is also somewhat sandy, and in the more western parts is stony and broken; but on the margins of the rivers are extensive alluvions of great fertility and productiveness. Beyond this the country is mountainous, traversed by successive ridges of the Alleghanies, which in Virginia occupy a greater breadth of country than in any other State.



PEAKS OF OTTER.

7. The "Valley section" embraces all the country between the Blue Ridge and the Alleghany Ridge. Between these are long, elevated valleys, parallel with them, often of considerable breadth, and containing some of the best and most pleasant lands in Virginia.

8. The "Trans-Alleghany section" extends from the Alleghany Ridge to the Ohio River. The general slope of the country is westward, but it is traversed by several chains, the principal of which is Laurel Mountain. The Trans-Alleghany section is a fine country, adapted in soil and climate to the successful culture of the grains, roots, tobacco, etc.; nor is it only a great agricultural region, but it is rich in minerals, and has forests covering a wide extent of country, indicating its value in an economic point of view. In the old settlements the soils have been exhausted by a vicious system of tillage, while here the virgin earth responds bountifully to the labor of the husbandman. The Tide-Water and Piedmont sections are chiefly engaged in the production of Indian corn and tobacco. Cotton is also produced in these sections. In the great valley the crops are the same, except that wheat takes the place of cotton, and the system of agriculture is superior to that followed in the lower country.

9. Virginia has noble rivers and streams, useful as channels of commerce or for industrial purposes. With few exceptions, the Ohio, west, and Chesapeake Bay, east of the mountains, are the recipients of the waters of the whole State.

10. The Potomac rises in the Alleghanies but a few miles from the Youghiogheny, and forces its way through several intermediate mountain chains to the Piedmont district, where it is broken by falls nine miles above Georgetown, at which place it reaches tide-water, and about 100 miles below, after a course of more than 300 miles, it reaches the Chesapeake. At Alexandria, 290 miles from the ocean, it is one mile and a quarter wide, and below that city gradually expands, until at its mouth it forms a broad estuary, seven and a half miles wide. Ships of the line ascend it to Washington, but above this it is obstructed by falls and rapids. The principal tributaries of the Potomac are its South Branch, the Great Cacapon, and the Shenandoah.

11. The Rappahannock has its sources in the Blue Ridge, and receives the Rapidan from the same ridge; and falling over the primary ledge at Fredericksburg, 100 miles from its mouth, reaches Chesapeake Bay by a large estuary, 25 miles below the entrance of the Potomac.

12. York River, formed by the union of the Pamunky and Mattapony, partakes rather of the character of a long, narrow bay than of a river; from the junction, 40 miles to the bay, it is from two to four miles wide, and large vessels pass to Yorktown.

13. James River, the principal river of Virginia, rises by several head streams from the Alleghany Mountains; after receiving the Cow Pasture and the Calf Pasture rivers, it forces its way through the Blue Ridge, and falling over numerous pitches, meets the tide at Richmond, 100 miles from its mouth. The only considerable tributary of this river, east of the Blue Ridge, is the Appomattox, which carries seven feet of water to Petersburg, 12 miles.

14. The Meherrin and Nottoway are small rivers, which unite in North Carolina, and form the Chowan. The Roanoke is formed in Virginia by the junction of the Dan and Staunton rivers, two rapid mountain streams, which rise—the former in the Blue Ridge, and the latter in North Mountain.

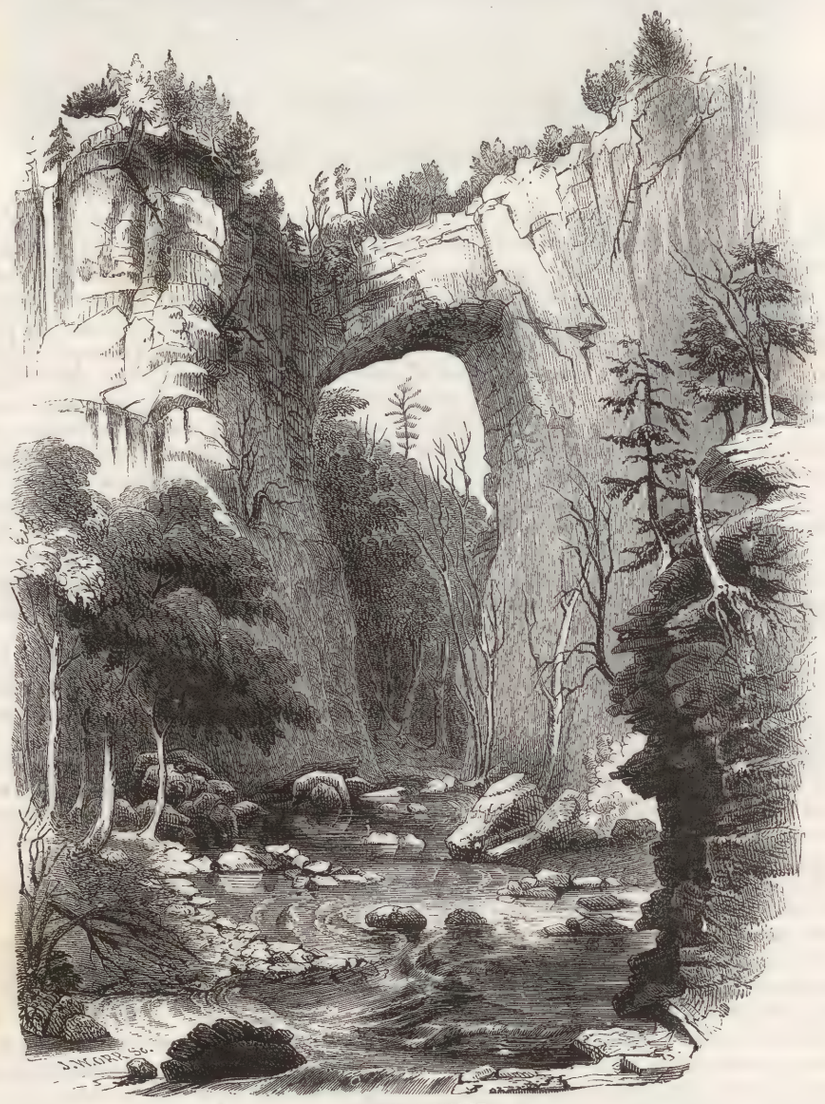
15. The great rivers of western Virginia are the Monongahela, one of the constituents of the Ohio, the Kanawha, the Guyandotte, the Big Sandy, etc. The Monongahela is formed in Virginia, by the union of the West Branch and Tygart's Valley River, and beyond the Pennsylvania line it receives Cheat River. The Kanawha, the principal river of this section, rises in the Blue Ridge, in North Carolina, and bears the name of New River until it unites with Gauley River, an affluent from Greenbrier Mountain. The Greenbrier, above the latter, and the Elk and Coal rivers below it, are its principal tributaries. The Guyandotte and Big Sandy enter the Ohio below the Kanawha; and the Holston and Clinch, which drain the southwestern section of the great valley, pass into Tennessee, and uniting at Kingston form the Tennessee River.

16. Virginia is an almost boundless field of mineral wealth, and among its principal products are gold, copper, lead, iron, coal, salt, and a variety of rocks suitable for building, and clays and earths useful in the arts.

17. The first coal-field is found extending from the Pamunky, by Richmond, to the Appomattox, a distance of 45 miles, with a breadth of one or two miles to eight. The coal is bituminous, in seams of enormous thickness, being 30, 40, and even 60 feet thick, and of excellent quality. Coal has also been found on both sides of the Upper Appomattox. Anthracite is found in the valley, from the Potomac to James River, south of which are bituminous deposits.

18. Beyond the Alleghanies the deposits of bituminous coal are very extensive, and these derive additional value from their being associated with not less important beds of iron and salt. At Wheeling, on the Ohio, and for 14 miles down the river, the bank presents an uninterrupted bed of highly bituminous coal, upward of 16 feet thick. The Wheeling Basin, indeed, extends for 30 miles up and down the river in Ohio and Virginia. Another vast field stretches from Clarksburg, on the Monongahela, to Pittsburg, and far beyond, to the northeast, in Pennsylvania, and another valuable field is found at the head waters of the north branch of the Potomac. There are also coal seams, associated with salt springs, on the Little Kanawha, and springs of petroleum occur in the same tract. On the Great Kanawha is a very rich and extensive coal-field; and on Coal, Gauley, and other rivers of western Virginia, beds of this mineral are frequently brought to view.

19. The salines of Virginia are almost wholly in the west. Salt springs occur on the Holston, New River, and the Greenbrier; but the most important works are on the Great and Little Kanawha. The mountain section of the State abounds with sulphur and other mineral springs, which are frequented in the summer season by invalids and pleasure seekers.



NATUEAL BRIDGE.

20. Bold scenery is one of the distinguishing features of Virginia. At Harper's Ferry, where the Potomac breaks through the Blue Ridge, the disruption has left behind it indelible marks. The Natural Bridge, below Lexington, is "the most sublime of nature's works." Everywhere in the Great Valley, and among its mountain borders, are found spectacles of grandeur and sublimity. Madison's and Weir's caves, both near Staunton, are vast caverns, the first extending 300 feet into the earth, branching into subordinate caverns, and terminating in two basins of water, of about 30 or 40 feet in depth; and the other 1,260 feet, and containing upward of 20 large rooms, besides numerous passages and galleries. Stalactites and stalagmites adorn these with a profusion of festoons and folds like tapestries, and represent statues, thrones, towers, columns which glitter in halls and chambers, such as nature only could design, and quite beyond the art of man.

21. In 1850 Virginia contained 1,421,661 inhabitants, or 23.17 to each square mile, or 6.13 per cent. of the total population of the Union. This population was distributed as follows:

Counties.	Population.	County Seats.
Accomac	17,890	Drummond T.
Albemarle	25,800	Charlottesville
Alexandria	10,008	Alexandria.
Alleghany	3,515	Covington.
Amelia	9,770	Amelia C. H.
Amherst	12,699	Amherst C. H.
Appomattox	9,193	Clover Hill.
Augusta	24,610	Staunton.
Barbour	9,005	Phillippa.
Bath	3,426	Warm Springs
Bedford	24,080	Liberty.
Berkeley	11,771	Martinsburg.
Boone	3,237	Ballardsville.
Botetourt	14,908	Fincastle.
Braxton	4,212	Suttonsville.
Brooke	5,054	Wellsburg.
Brunswick	13,894	Lawrenceville
Buckingham	13,837	Maysville.
Cabell	6,299	Barboursville.
Calhoun	(*new.*)	—.
Campbell	23,245	Campbell C.H.
Caroline	18,456	Bowling Gr.
Carroll	5,909	Carroll C. H.
Charles City	5,200	Cha. City C.H.
Charlotte	13,955	Marysville.
Chesterfield	17,489	Chester'd C.H.
Clarke	7,352	Berryville.
Craig	(*new.*)	Newcastle.
Culpepper	12,282	Culpep. C. H.
Cumberland	9,751	Cumberl. C.H.
Dinwiddie	25,118	Dinwid. C. H.
Doddridge	2,750	West Union.
Elizabeth City	4,586	Hampton.
Essex	10,206	Tappahannoc.
Fairfax	10,682	Fairfax C. H.
Fauquier	20,868	Warrenton.
Fayette	3,955	Fayetteville.
Floyd	6,458	Jacksonville.
Fluvanna	9,487	Palmyra.
Franklin	17,430	Rocky Mount.
Frederick	15,975	Winchester.
Giles	6,570	Parisburg.
Gilmer	3,475	Glenville.
Gloucester	10,527	Glouces. C. H.
Goochland	10,352	Goochl'd C. H.
Grayson	6,677	Greensville.
Greenbrier	10,022	Lewisburg.
Greene	4,400	Stannardsville
Greensville	5,639	Hicksford.
Halifax	25,962	Halifax C. H.
Hampshire	14,036	Romney.
Hancock	4,050	Hancock C.H.
Hanover	15,153	Hanover C. H.
Hardy	9,543	Moorefield.
Harrison	11,728	Clarksburg.
Henrico	43,572	Richmond.
Henry	8,573	Martinsville.
Highland	4,227	Monterey.
Isle of Wight	9,353	Smithfield.
Jackson	6,544	Ripley.
James City	4,020	Williamsburg.
Jefferson	15,357	Charlestown.
Kanawha	15,353	Charleston.
King & Queen	10,319	K.and Q. C.H.
King George	5,971	K. Geor. C. H.
King William	8,779	K. Will. C. H.
Lancaster	4,708	Lancast. C. H.
Lee	10,267	Jonesville.
Lewis	10,031	Weston.
Logan	3,620	Arracoma.
Loudoun	22,079	Leesburg.
Louisa	16,691	Louisa C. H.
Lunenburg	11,692	Lewiston.
Madison	9,331	Madison C. H.
Marion	10,552	Fairmount.
Marshall	10,138	Elizabethtown
Mason	7,539	Pt. Pleasant.
Matthews	6,714	MatthewsC.H.
Mechlenburg	20,630	Boydtown.
Mercer	4,222	Princeton.
Middlesex	4,394	Urbana.
Monongalia	12,387	Morgantown.
Monroe	10,204	Union.
Montgomery	8,359	Christiansb'g.
Morgan	3,557	Bath.
Nansemond	12,283	Suffolk.
Nelson	12,758	Livingston.
New Kent	6,064	N. Kent C. H.
Nicholas	3,963	Summersville.
Norfolk	33,036	Norfolk.
Northampton	7,498	Eastville.
Northumberl'd	7,346	Heathsville.
Nottoway	8,437	Nottoway C.H.
Ohio	18,006	Wheeling.
Orange	10,067	Orange C. H.
Page	7,600	Luray.
Patrick	9,609	Taylorsville.
Pendleton	5,795	Franklin.
Pittsylvania	28,796	Competition.
Pleasants	(*new.*)	St Mary's
Pocahontas	3,598	Huntersville.
Powhatan	8,178	Scottsville.
Preston	11,708	Kingwood.
Prince Edward	11,857	P. Edw. C H.
Prince George	7,596	P Geor. C. H.
Prince William	8,129	Brentsville.
Princess Anne	7,669	Pr. Anne C. H.
Pulaski	5,118	Newbern.
Putnam	5,385	Putnam C. H.
Raleigh	1,765	Beckley.
Randolph	5,243	Beverly.
Rappahannock	9,782	Washington.
Richmond	6,448	Warsaw
Ritchie	3,902	Harrisville.
Roane	(*new.*)	—.
Roanoke	8,477	Salem
Rockbridge	16,045	Lexington.
Rockingham	20,294	Harrisonburg
Russell	11,919	Lebanon.
Scott	9,829	Estillville.
Shenandoah	13,768	Woodstock.
Smyth	8,162	Marion.
Southampton	13,521	Jerusalem
Spottsylvania	14,911	Spottsylv. C.H.
Stafford	8,044	Stafford C. H.
Surry	5,679	Surry C. H.
Sussex	9,820	Sussex C. H.
Taylor	5,367	Pruntytown.
Tazewell	9,942	Jeffersonville.
Tucker	(*new.*)	—.
Tyler	5,498	Middlebourne
Upshur	(*new.*)	Buckhannan
Warren	6,607	Front Royal.
Warwick	1,546	Warwick C.H.
Washington	14,612	Abingdon
Wayne	4,760	Wayne C H.
Westmoreland	8,080	Westm'd C H
Wetzel	4,284	N.Martinsville
Wirt	3,353	Elizabethtown
Wise	(*new.*)	—.
Wood	9,450	Parkersburg.
Wyoming	1,645	Oceana.
Wythe	12,024	Evansham.
York	4,460	Yorktown.

—and consisted of 167,530 families inhabiting 165,815 dwellings. Of the total population 894,800 (62.94 per cent.) were whites—451,300 males and 443,500 females, 54,333 free colored—26,002 males and 28,331 females, and 472,528 slaves—240,562 males and 231,966 females; and of the free population (949,133) 926,154 (97.58 per cent.) were Americans, of whom 872,923 were born in this State; 22,394 (2.36 per cent.) foreigners, and 585 of origin not ascertained. The number of Virginians living in other States of the Union was 388,059. In 1790 Virginia contained 748,308 inhabitants; in 1800, 880,200; in 1810, 974,622; in 1820, 1,065,379; in 1830, 1,211,405; in 1840, 1,239,797; and in 1850 (as above), 1,421,661. The population in 1855 was estimated at 1,527,837.

22. The number of free male persons over 15 years of age engaged in industrial pursuits in 1850 was 226,875. Of these 52,675 were engaged in commerce, trade, manufactures, mechanic arts, and mining; 108,364 in agriculture; 48,338 in labor not agricultural; 274 in the army; 3,263 in sea and river navigation; 4,791 in law, medicine, and divinity; 5,622 in other pursuits requiring education; 1,491 in government civil service; 79 in domestic service, and 1,978 in unclassified occupations.

23. Virginia is a great agricultural State, and has also considerable manufactures and a valuable commerce and domestic trade. It staples are tobacco and flour, and oysters, for which its shores are famous. In the aggregate value of its productions, agricultural and general, it is only surpassed by four other States, viz., New York, Pennsylvania, Ohio, and Massachusetts; but in proportion to its population its productive power is surpassed by twenty-four States, having been in 1850 only at the rate of $59 42 *per capita*. Virginia, however, is rapidly progressing, and by means of an extensive but as yet unfinished system of public works, is preparing the way to a renewed prosperity, and the re-attainment of that proud position it once held as the great State of the American Union.

24. In 1850 there were in Virginia 77,013 farms and plantations, occupying 10,360,135 acres of improved and 15,792,176 acres of unimproved land, or a total of 26,152,311 acres, or two thirds of the whole area of the State. The cash value of these farms, etc., was $216,401,543, and of the implements and machinery thereon $7,021,772.

25. The livestock owned in the State in 1840 and 1850 comparatively was as follows:

1840	equines,	326,488	neat cattle,	1,024,148	sheep,	1,293,772	swine, 1,992,155
1850	"	293,886	"	1,076,269	"	1,310,004	" 1,829,843

The equines in 1850 consisted of 272,403 horses and 21,483 mules and asses, and the neat cattle of 317,619 milch cows, 89,513 working oxen, and 669,137 other cattle. The total value of the livestock in the latter year was $33,656,659, and the value of the animals that had been slaughtered in the year was $7,502,986; and the quantity of cheese produced had been 436,292, of butter 11,089,359, and of wool 2,860,765 pounds. In 1840 the wool crop amounted to 2,538,374 pounds.

26. The production of the cereals (bushels) in 1840 and 1850 compared thus:

1840	wheat,	10,109,719	rye,	1,482,799	oats,	13,451,062	corn,	34,577,591	barley,	87,430	buckwheat,	243,822
1850	"	11,212,616	"	458,930	"	10,179,144	"	35,254,319	"	25,437	"	214,898

—and other food crops in 1850 consisted of potatoes 3,130,567 (Irish 1,316,933, and sweet

1,813,634) bushels, and beans and peas 521,579 bushels, etc.; and the crop of hay amounted to 369,098 tons, with 29,727 bushels of clover-seed, and 23,428 bushels of other grass-seed.

27. Tobacco, the great staple of Virginia agriculture, was produced to the extent—in



A VIRGINIA TOBACCO PLANTATION.

1840 of 75,347,106, and in 1850 of 56,803,227 pounds, being 34 and 28 per cent. of the crop of the whole United States in the years respectively.

28. In addition to these Virginia also produced in 1850 the following: cotton, 1,578,800 pounds; rice, 17,154 pounds; flax, 1,000,450 pounds; hemp, 378,000 pounds; beeswax and honey, 249,422 pounds; maple-sugar, 1,227,665 pounds, etc.; and the products of market gardens were valued at $183,047, and of orchards at $177,137.

29. The total value of agricultural products in 1840 was $48,644,905, and in 1850, $52,512,452.

30. The following table exhibits the condition of the miners, manufacturers, and mechanic arts of this State in 1850, and the progress of this branch of industry for a series of years:

Branches.	Number of Works.	Capital Invested.	Value of Raw Material.	Hands Employed.	Cost of Labor.	Value of Goods Produced.
Cotton mills	27	$1,908,900	$828,375	2,963	—	$1,486,384
Woolen mills	121	392,640	488,899	668	—	841,013
Iron works—pig	29	513,800	158,307	1,129	—	521,924
" —cast	54	471,160	297,014	819	—	674,416
" —wrought	38	747,811	531,325	1,131	—	1,098,252
Distilleries, etc	60	100,915	—	131	—	247,360
Tanneries	341	676,983	—	906	—	894,876
Salt works	40	1,269,900	234,623	1,297	—	700,466
Not specified	4,031	12,028,784	15,564,890	20,065	—	23,240,696
Total	4,741	$18,109,993	$18,103,433	29,109	$5,413,764	$29,705,387

—in 1810 the value of products was $16,806,096; in 1820 (incomplete returns), $6,686,699; in 1830 (no returns); in 1840, $18,242,936, and in 1850 (as above), $29,705,387. Among the non-specified manufactures is that of tobacco, which is one of the most important. Richmond, Norfolk, Petersburg, Lynchburg, Staunton, and Wheeling are the principal seats of manufacturing industry. To these may be added Harper's Ferry and Alexandria on the Potomac.

31. The value of home manufactured goods produced in 1840 was $2,441,672, and in 1850, $2,156,312.

32. The coast fisheries and those of Chesapeake Bay are very valuable, but are not operated to any considerable extent. The oyster fishery, however, is a source of great profit, and so extensive are the beds that their area is estimated at 2,000 square miles. In 1855 no less than 14,400,000 bushels were taken, which at 30 cents were valued at $4,800,000, and the boats employed in this business amounted to 90,000 tons.

33. In direct foreign commerce Virginia occupies among the States the tenth rank. In 1850 and 1855 its exports amounted to $3,415,646 and $4,379,928, and its imports to $426,599 and $855,405. In the same years the shipping cleared amounted to 65,458 and 71,732 tons, and the shipping entered to 30,965 and 66,740 tons. The amount of shipping owned in the State in 1850 was 74,071 (registered 18,042 and steam 8,725) tons, and in 1855 (registered 25,811 and steam 9,598), 127,319 tons; and in these years the shipping built measured 3,584 and 4,603 tons. The separate tonnage on the Atlantic and on the Ohio, and the ship-building in the two sections was as follows:

	Total Tonnage.		Steam Tonnage.		Tonnage Built.	
	1850.	1855.	1850.	1855.	1850.	1855.
Ports of the Atlantic	68,138	121,832	2,792	4,111	1,957	4,155
Wheeling, on the Ohio	5,933	5,487	5,938	5,487	885	448

—Norfolk and Richmond are the principal sea-ports, and in a more restricted sense, Alexandria, Camden, and Petersburg. Wheeling is the chief port on the Ohio.

34. The coasting and internal trade of the State is far more extensive and valuable than the foreign trade. The great bulk of the products are carried to Baltimore, Philadelphia, and New York by steamers and other coasting vessels, and thence exported, and by the same routes foreign goods are brought into the State; and hence what is absolutely Virginia commerce is credited to the ports through which it trades with foreign countries. This arrangement, however, gives to the coasting trade an unprecedented activity, and is a source of wealth to the shipowners. The internal trade is carried on chiefly by means of railroads and canals, which have already been carried beyond the mountains, and several of these works have also direct connection with the northern sea-port towns, and in other directions with the south and southwest. The Ohio trade is monopolized by Wheeling and Parkersburg, and is entirely diverted from the ports of Virginia by the railroads from these points to Baltimore, etc. Great efforts, however, are now being made to direct the whole commerce of the State to its own sea-ports, and for this purpose railroads are in the course of construction in the proper direction, and which when completed will probably enable Virginia to regain to itself the position it enjoyed, during the period of its entire history, of ranking among the first commercial States of the Union.

35. The railroads now (1855) in operation within the State have a total length of 1,500 miles, being one mile of road to every 40 miles of surface, or to every 1,000 of the total population. The principal lines have an east-and-west direction—in the north the Baltimore and Ohio Railroad, in the middle the Central and its projected continuation, the Covington and Ohio Railroad, and in the south the Petersburg and Knoxville line. The great north-and-south line crosses the State through Petersburg, Richmond, etc.; and from Alexandria railroads partly built extend to the interior northwest toward the Ohio, and southwest to Gordonville, Lynchburg, etc., and *via* Manassas Gap to Staunton, etc.; and from Richmond and Petersburg other lines seek the sea-board. The principal canals in the State are the James River and Kanawha, already completed from Richmond to the Blue Ridge, and to be extended to the Ohio; the eastern portion of the Chesapeake and Ohio Canal, which terminates at Alexandria, and a portion of the Dismal Swamp Canal, which opens a navigable passage between James River and Albemarle Sound.

36. In 1850 Virginia had thirty-seven and in 1855 fifty-seven banks, with capital in the respective years amounting to $9,824,545 and $13,600,188. The assets at the two periods consisted of—loans and discounts, $19,646,777 and $25,319,948; stocks, $269,914 and $2,647,366; real estate, $764,282 and $807,981; specie, $2,928,174 and $3,151,109, and other assets, $2,718,303 and $3,326,924; and the liabilities of—circulation, $10,256,997 and $13,014,926; deposits, $4,717,732 and $6,204,340, and other liabilities, $308,841 and $700,597.

37. The government is based on the constitution of 1851. The right to vote is conceded to every white male citizen twenty-one years of age, who has resided in the State two years and in the county or city one year next preceding an election. Votes are given *viva voce*, and not by ballot. The general election is held on the fourth Thursday in April.

38. The legislature consists of a house of delegates with 152 members, elected for two years, and a senate with 50 members, elected for four years, one half biennially. All qualified voters are eligible for election to these offices. The sessions of the legislature are biennial, and commence on the first Monday in December.

39. The governor and lieutenant-governor are elected for four years, and enter upon their functions on the first January next after election. These officers must have attained the 30th year, be citizens of the United States and of the State, and the governor during his term of office must reside at the seat of government. The chief administrative officers are elected by joint vote of the general assembly for two years.

40. The judiciary is vested in a supreme court, district courts, and circuit courts. In each circuit (21 in number) one judge is elected for eight years, and holds two circuit courts in each county of his circuit annually. In each district (10 in number) two district courts are held annually by the judges of the circuits constituting the district, and the judge of the supreme court of the section in which the district is situated. In each section (5 in number) a judge is elected for 12 years, and the five judges so elected constitute the supreme court, which holds three terms at Richmond and one at Lewisburg annually. For county court purposes each county is divided into districts, and each district elects four justices for four years. This court is held monthly in each county.

41. The principal public institutions supported in part or whole by the State are the State lunatic asylums at Staunton and Williamsburg, the Deaf and Dumb and Blind Asylum at Staunton, the State Penitentiary at Richmond, the Virginia Military Institute at Lexington, the University of Virginia near Charlotteville, etc., etc.

42. The operations of the treasury for the year ending Sept. 30, 1855, were as follows:

	Resources.	Expenditures.
Balance from last year	$321,346	—
General account	2,146,958	$2,182,330
Literary fund	117,753	169,648
Public works	1,757,691	1,868,924
Sinking fund	1,600,027	1,707,043
Total	$5,943,775	$5,922,451

The chief sources of income are taxes (which in this year amounted to $1,307,316), loans for public works, dividends, etc.

43. The public funded debt on the 1st July, 1856, amounted to $26,001,012, and the annual interest thereon to nearly $1,500,000. The contingent debt amounted to $3,898,500, making with the funded debt a total of $27,899,512. The resources of the State consisted of—bank stock, $3,808,220; stock in internal improvement companies, $18,359,226; bonds in internal improvement companies, $630,675; loans to internal improvement companies, $4,886,000, etc.—amounting in the aggregate to $27,686,621; and the available capital of the Literary Fund amounted to $1,641,758. The total value of taxable property in the State in 1855 was $530,994,897.

44. The number of children attending school in 1849–50 was 109,775, or one in every 8.64 of the total free population. The condition of the schools on the 1st June, 1850, was as follows:

Classification.	Number.	Teachers.	Scholars.	Income.
Primary and public schools	2,930	2,997	67,353	$314,625
Academies and private schools	317	547	9,068	234,372
Universities and colleges	12	73	1,343	159,790

—making a total of 3,259 institutions, 3,617 teachers, and 77,764 scholars, with an annual income amounting to $708,787.

45. The principal collegiate institutions and their statistics in 1855 are noted in the following table:

Institutions.	Location.	Founded.	Professors.	Students.	Libraries.
William and Mary College	Williamsburg	1692	6	82	5,600
Hampden-Sidney "	Prince Edward Co	1783	5	95	8,500
Washington "	Lexington	1783	6	71	11,000
University of Virginia	Charlotteville	1819	16	366	25,000
Randolph-Macon College	Mechlenburg Co.	1832	7	103	10,000
Richmond "	Richmond	1832	6	167	6,000
Emery and Henry "	Washington Co.	1833	5	54	3,000
Rector College	Taylor Co.	1839	4	57	2,800
Virginia Military Institute	Lexington	1839	13	162	6,000
Bethany College	Bethany	1841	6	140	3,600
Roanoke "	Salem	—	—	—	—
Piedmont University	Liberty Co.	—	—	—	—
Prot. Epis. Theological Seminary	Fairfax Co.	1823	4	41	7,000
Union Theological "	Prince Edward Co.	1824	3	29	4,500
Virginia Baptist Theolog. "	Richmond	1832	3	67	1,200
Law School—Will. and Mary Col.	Williamsburg	—	1	32	Col. Lib.
" —Univer. of Virginia	Charlotteville	1825	2	90	2,000
Med. Depart.—Univer. of Virginia	Charlotteville	1819	4	96	Univ. Lib.
" —Hamp.-Sidney Col.	Richmond	1836	7	91	Col. Lib.
Winchester Medical College	Winchester	1846	5	—	—

46. The number of free persons in Virginia of 15 years of age and upward who could not read and write in 1850 was 88,520, of which 87,383 were natives and 1,137 foreigners, and 77,005 were whites and 11,515 free colored persons.



UNIVERSITY OF VIRGINIA.

47. The predominant religious denominations of this State are the Methodists, Baptists, and Presbyterians, and next in relation to numbers the Episcopalians. The Roman Catholics are comparatively few in number, and the adherents of other religions less numerous than in most of the other States. The total number of churches of all denominations in 1850 was 2,383, with accommodation for 856,436 persons, and holding property to the value of $2,856,076.

48. The principal cities and towns of Virginia are Richmond, Norfolk, Portsmouth with Gosport, Petersburg, Alexandria, Fredericksburg, Winchester, Lynchburg, and Wheeling. The progress of these places in population has been as follows:

Cities.	1790.	1800.	1810.	1820.	1830.	1840.	1850.	1855.
Richmond	3,761	5,737	9,735	12,067	16,060	20,153	27,570	32,389
Petersburg	2,828	3,521	5,668	6,690	8,322	11,136	14,010	15,500
Norfolk	2,959	6,746	9,183	8,478	9,814	10,920	14,326	18,000
Portsmouth	1,702	—	—	—	—	6,477	8,936	10,000
Fredericksburg	—	—	—	—	3,307	3,974	4,061	4,500
Alexandria	—	5,071	7,227	8,218	8,263	8,459	8,734	9,000
Lynchburg	—	496	—	—	—	6,395	8,071	10,000
Wheeling	—	—	914	1,567	5,221	7,885	11,391	14,136
Winchester	—	2,128	—	—	—	3,454	3,857	4,000

—and other principal places with their population as in 1850 are—Charleston, Kanawha Co., 1,050; Charlestown, Jefferson Co., 1,507; Danville, Pittsylvania Co., 1,514; Harper's Ferry, Jefferson Co., 1,747; Leesburg, Loudon Co., 1,691; Lexington, Rockbridge Co., 1,743; Martinsburg, Berkeley Co., 2,190; Parkersburg, Wood Co., 1,218; Shepherdstown, Jefferson Co., 1,361; Staunton, Augusta Co., 2,500; Williamsburg, James City Co., 877.

49. Richmond, the chief city and seat of government, is situated on the north bank and at the lower falls of James River. Latitude 37° 32′ 17″, and longitude 77° 27′ 28″. It is one of the most beautiful towns of the Union, and environed by a varied and interesting scenery. The city is built on several elevations, the most noted of which are Shockoe and Richmond hills, between which runs Shockoe Creek. The streets running parallel with James River are alphabetically named, A Street being on the river. These are intersected by others at right angles, named numerically. The principal thoroughfare is Main or E Street, which is the center of business. The chief public edifices are built on Shockoe Hill, in the western part of the city, and the Capitol, from its size and elevated position, is the most conspicuous object in the city. This is also the fashionable quarter.



CITY OF RICHMOND.

50. The Capitol stands on a square of about eight acres, is adorned with a portico of Ionic columns, and contains a marble statue of Washington, taken from life by Houdon. The City Hall is a costly building, in the Doric style. At an angle of Capitol Square, and at a little distance from the Capitol, is the governor's official residence. The Penitentiary, in the western suburbs, and facing the river, is a massive structure, 300 feet long and 110 feet deep. The city also contains the county court-house, a jail, a fine armory, two market-houses, a theater, an orphan asylum, etc., with about 30 churches and numerous educational institutions, among which are prominent Richmond College (Baptist) founded in 1832, St. Vincent's College (Roman Catholic), and the Medical Department of Hampden and Sidney College, founded in 1838.

51. Richmond owes its present flourishing condition to its river facilities, the immense water-power supplied by the falls, and the energy with which its citizens have extended their works of improvement into the interior. It is alike the manufacturing and commercial metropolis of the State. The river is navigable to this port for vessels drawing 10 feet of water, and those drawing 15 feet may ascend it to within three miles of the city.

52. North and south its railroad connections are complete, and westward both railroad and canal have already been carried to the Blue Ridge, with the ultimate project of reaching the Ohio River. Southwest the railroad extends to Danville, and will soon be in connection with the railroad system of North Carolina. The Richmond and York River Railroad, now being built, will give the city a direct seaward outlet, and another route to the sea-board will be furnished, *via* Petersburg, by a railroad to Norfolk. Its communications by steamers are—with New York and Philadelphia semi-weekly, and with Baltimore and Norfolk daily.

53. The chief articles of export are tobacco, wheat, and flour. The quantity of tobacco inspected here in 1852 was 24,119 hogsheads, which is chiefly shipped to England, France, Italy, Bremen, and Holland. The direct foreign trade, however, is comparatively limited, and transacted chiefly through Baltimore, Philadelphia, and New York, the freighting business between Richmond and those ports being commensurately extensive and valuable.

54. As a manufacturing city, Richmond, as before stated, has eminent facilities. From the commencement of the rapids, a few miles above the city, to tide-water the river descends 100 feet. The vast water-power thus created has of late years attracted general attention, and many extensive industrial establishments have been built along the river. The principal products are flour, tobacco, textile goods, paper, machinery, and ironware. The flouring-mills of this city have a wide celebrity, and their brands are noted in every market. There are upward of fifty tobacco factories, many of them very extensive, and the city has also become noted for its railroad machinery and iron manufactures generally. Richmond has three banks, with a capital of $2,500,000, and several insurance offices.

55. On the opposite side of the river, and connected with it by three bridges, are the suburban villages of Manchester and Spring Hill, together containing about 3,000 souls.

56. North of Richmond, by the Richmond, Frederick and Potomac Railroad, 60 miles, is the city of Fredericksburg, a thriving place on the Rappahannock River, at the head of tide. Its trade is chiefly in tobacco and flour. Petersburg, 22 miles south Richmond by railroad, is situated on the Appomattox, and may be considered as the natural port of Lynchburg, with which it is connected by the South Side Railroad. The river affords excellent water-power, and there are numerous manufacturing establishments on its banks. It is one of the great tobacco markets of Virginia, and in point of population the third city of the State.

57. A railroad, now in course of construction, will connect this city with Norfolk, the chief sea-port of the State for foreign commerce. This city is situated on the north bank of Elizabeth River, eight miles from Hampton Roads, 32 miles from the sea, and 160 miles from Richmond. Latitude 36° 50′ 50″, and longitude 76° 18′ 47″. The river, which is here nearly a mile wide, separates it from Portsmouth and Gosport, in connection with which it is the most important naval station in the United States. The harbor is safe, capacious, and of easy access, admitting the largest vessels to its wharves. The site is almost level and very low; but the city is well built, chiefly of brick, and is lighted with gas. The principal public buildings are the City Hall, a Military Academy, Mechanics' Hall, and the churches, fifteen in number. The trade of the port is facilitated by the Dismal Swamp Canal, which opens a communication between Chesapeake Bay and Albemarle Sound, and by the Seaboard and Roanoke Railroad, which connects it with the interior. Consequent on these improvements, the city has rapidly progressed, and within the few last years substantial warehouses, wharves, etc., have been constructed. The entrance to the harbor is protected by forts Calhoun and Monroe. Norfolk has regular steamboat communication with Baltimore, Philadelphia, and New York, and also with Richmond; and there is a route projected to Cape Charles by steamboat, and thence north by railroad through the Delaware peninsula.

58. Portsmouth, on the south bank of Elizabeth River, is situated immediately below the junction of its branches, and is the terminus of the Seaboard and Roanoke Railroad. Its suburb, Gosport, is the seat of the United States Navy Yard and dry-dock. In the vicinity there is also a fine naval hospital. The business of Portsmouth is altogether commercial. It is in constant communication with Norfolk by steam-ferry; and a daily line of steamboats gives it direct communication with Richmond.

59. Alexandria, formerly in the District of Columbia, from which it was dissevered in 1846, is a port of entry on the Potomac River, seven miles below Washington. The river, here a mile wide, forms a commodious harbor, and is deep enough for the largest ships. The city is situated on an undulating plain; the streets cross at right angles, and are generally well-paved and lighted with gas. There are no remarkable public buildings, but about a dozen churches and several good schools. Alexandria is one of the great coal ports of the Maryland mining region, and has also a considerable trade in tobacco and other agricultural produce. It is connected with the interior by the Chesapeake and Ohio Canal and the Orange and Alexandria and Manassas Gap railroads; and a railroad has recently been constructed to connect it with Washington. A railroad, under the title of Alexandria, Loudon and Hampshire Railroad, is now being constructed westward toward the Ohio. These works have been of great advantage to the port. Nine miles below Alexandria is Mount Vernon, the former residence of Washington and the site of his tomb.

60. Harper's Ferry, at the confluence of the Shenandoah with the Potomac, where the

united stream breaks through the Blue Ridge, is no less noted for its grand scenery than for its peculiar industry. The village is the seat of a federal armory, at which a vast amount of small-arms are annually manufactured, and otherwise it has considerable manufactures and a



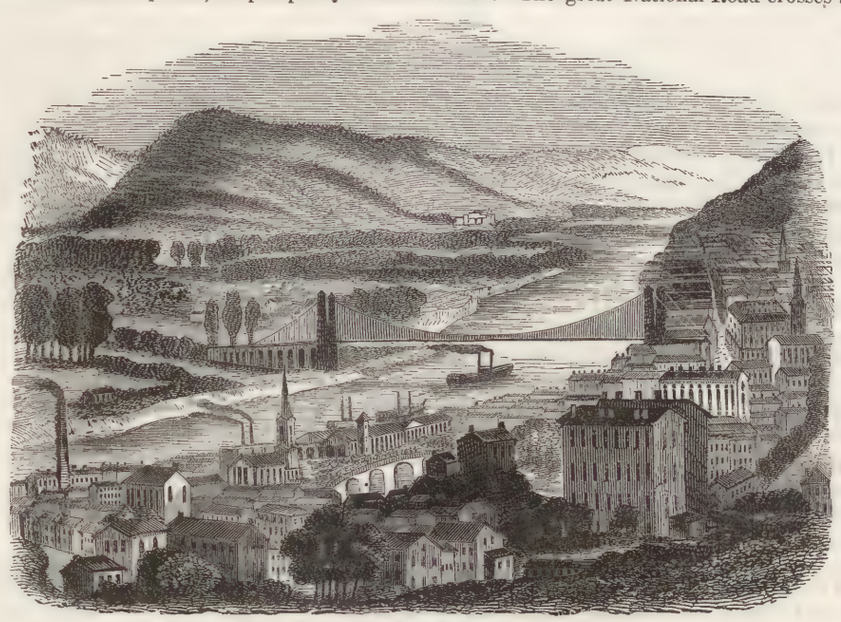
HARPER'S FERRY.

large trade. At this point the Winchester and Potomac Railroad joins the Baltimore and Ohio line, and together these important lines afford to it excellent facilities for commerce.

61. Lynchburg, the principal town in the interior, is situated on James River (here 200 yards wide, and affording great water-power), and is reached from Richmond by the James River Canal, and from Petersburg by the South Side Railroad. Westward the Virginia and Tennessee Railroad extends to the Tennessee line, and there connects with the railroad system of that State. The canal passing through this city extends to Buchanan, and will ultimately be carried to the Ohio River. These lines of trade are sought by a wide region, and make Lynchburg a chief depôt of the internal trade of the State. The great staple of the city is tobacco, which is extensively manufactured and exported to Richmond and Petersburg.

62. Charlotteville is situated on the Rivanna River, 80 miles west-by-north Richmond, and about 60 miles north from Lynchburg. It is a thriving town, having connections east and west by the Virginia Central Railroad, and north and south by the Orange and Alexandria Railroad. One mile west of the town is the University of Virginia, founded in 1819, under the auspices of Jefferson, and about three miles distant is Monticello, the residence of the author of the Declaration of Independence. Gordonsville, 20 miles east of Charlotteville, is the point of connection of the Orange and Alexandria and the Central railroads, and a thriving town. West of Charlotteville, 41 miles, is Staunton, the seat of the Western Lunatic Asylum and of the Virginia Institution for the Deaf and Dumb and Blind. This is one of the most important towns of Virginia. In the limestone formation of this region extensive caverns occur, the most noted of which is that of Weyer's Cave, 18 miles northeast the town.

63. Wheeling, on the Ohio River, 95 miles below Pittsburg, and 632 feet above sea-level, is the most considerable town of western Virginia. Latitude 40° 7′, and longitude 80° 42′. The site is a narrow alluvial tract, overlooked by precipitous hills, and extending about two miles along the stream. It has already a large commerce, and when its great railroad connections are completed, its prosperity will be secured. The great National Road crosses the



CITY OF WHEELING.

river at Zane's Island, opposite the city, by a wire suspension bridge, the span of which is 1,010 feet. Wheeling is also the western terminus of the Baltimore and Ohio and of the Hempfield railroads, and on the opposite bank of the river are the termini of several railroads —from Cincinnati, Columbus, Cleveland, etc. These lines will eventually be connected by a bridge over the river. Steamboats have regular communication with all the river towns up and down. The hills back from the city contain inexhaustible beds of coal, which supply abundance of fuel for these and the manufacturing establishments within and around it, which have already become very important auxiliaries to its prosperity.

64. Parkersburg, 97 miles below Wheeling, is the western terminus of the Northwestern Railroad, practically a southern arm of the great Baltimore and Ohio Railroad. The town is built at the confluence of the Little Kanawha with the Ohio, and has for many years claimed superior importance among the river towns as a commercial mart. Point Pleasant, above the mouth of the Great Kanawha, is a small village at the present day, but, being the terminus of the northern arm of the Covington and Ohio Railroad, has every prospect of becoming a prosperous commercial town. Charleston, on the Great Kanawha, 60 miles from its mouth, is the center of the salt region of western Virginia.

65. The first settlement was made at Jamestown, in April, 1607, and this was the first permanent English settlement in America. The government was originally administered by a council of seven persons, with a president chosen from among their number, but afterward by a governor appointed by the king. Subsequent to the Revolution of 1688 Virginia long enjoyed a prosperous tranquillity. On the approach of the American Revolution the eloquent statesmen of Virginia were among the first to oppose English oppression. In June, 1776, a State government was established. Throughout the struggle for liberty Virginia bore a most prominent part, and within its limits took place the surrender of Cornwallis. Within the last few years the progress of the State has been more rapid than at any former period.

STATE OF NORTH CAROLINA.



DISMAL SWAMP CANAL.

1. North Carolina lies between latitudes 33° 50′ and 36° 30′ north, and longitudes 75° 25′ and 84° 30′ west, and is bounded on the north by Virginia, on the east and southeast by the Atlantic Ocean, on the south by South Carolina and Georgia, and on the west by the Alleghany Mountains, which separate it from Tennessee.

2. The greatest length of the State, east and west, is about 450 miles, and its greatest breadth, which occurs in the meridian of Cape Fear, is 184 miles. The average breadth, however, is not more than 120 miles. Its area is computed at 50,704 square miles, or 1.73 per cent. of the whole of the United States territory. The continental coast-line has a length of 320 miles, but including the shore-line of its bays and other irregularities a length of 1,089 miles, or one mile to every 46.5 square miles of surface.

3. The maritime section of North Carolina forms, as it were, a chaos of land and water. The entire coast is lined with low, narrow sand islands, broken at intervals, and forming communications between the ocean and the lagoons which lie between the islands and the mainland. South of Cape Lookout these inlets are numerous and the lagoons narrower; north of that headland the converse obtains. Extensive shoals extend from the shore seaward, and, with the lagoons, the bars and banks are constantly changing their position. Furious gales, too, are prevalent.

4. From the sea-coast, for a distance of 60 or 80 miles, the country is perfectly level, traversed by sluggish and muddy streams, and abounding in swamps and marshes. The soil, except along the banks of the streams, where it is sometimes fertile, is sandy and barren. The swamps cover an area equal to one tenth part of the whole State. The Great Dismal Swamp, partly in this State and partly in Virginia, is 30 miles long, and from 10 to 12 broad, extending over 100,000 acres. In some places it is densely covered with cedars, pines, and cypress, and in others is impervious on account of tall and rank grasses and undergrowths. In the center is Lake Drummond, 20 miles in circuit. The soil is covered knee-deep with water, and consists chiefly of a soft, yielding bog. Similar in its character, and nearly as large, is Alligator Swamp, on the peninsula between Albemarle and Pamlico sounds. There are other swamps farther south. Many have been drained, and the recovered lands are excellent for rice and cotton.

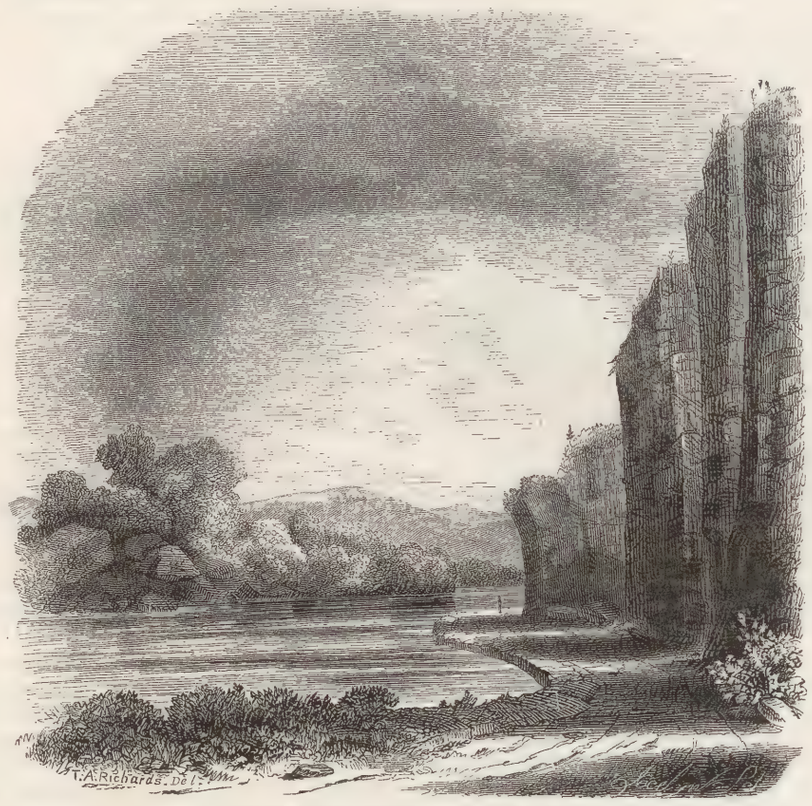
5. Advancing into the country, its physical aspect becomes more and more changed. The land now rises into small hills, stones appear on the surface, and the streams ripple in their courses. For 40 miles behind the flat region there extends, as far as the lower falls of the rivers, a belt of land of a surface moderately uneven, with a sandy soil, of which pitch pine is the natural growth. Above the falls the surface is undulated, and still farther, beyond the Yadkin and the Catawba, is an elevated region, forming part of the great central plateau or table-land of the United States, 1,000 to 2,000 feet above the sea-level. The peaks of the Blue Ridge of the Alleghanies tower high above this. Clingman's Peak, the highest summit east of the Rocky Mountains, has an elevation of 6,941 feet; and Mitchell's Peak rises to the height of 6,732 feet. Both are culminations of the same (the Black) mountain knot. Roan Mountain, the summit of which is a broad meadow, is 6,270 feet high; Grandfather Mountain 5,788 feet, and Table Mountain 3,420 feet. Mount Ararat, or Pilot Mountain, in Surry County, is cylindrical in form, and its ascent nearly perpendicular. King's Mountain, another isolated hill, partly in South Carolina, is celebrated as the site of a battle fought in 1780. Between the mountains in the west the soil is productive, and being well grassed, forms extensive pastures.

6. The rivers of North Carolina, though of goodly dimensions, are not navigable for large vessels. Many lose themselves in lagoons difficult of access. The principal river, the course of which lies wholly within the State, is Cape Fear River; it is formed by the Haw and Deep, which rise near the north boundary, and is the only large stream that flows direct to

the ocean. It falls over the first ledge to the low country at Averasboro'; at Fayetteville it can be navigated by large boats, and above Wilmington it forms two branches, which reunite below that town, and hence flows on in a broad, sluggish stream. Its channel, however, has been contracted, and at Wilmington it has now 12 or 13 feet of water, with 10 to 14½ feet on the bar of the main entrance. The direction of its flow is southeast, and the length of its course about 280 miles.

7. The Chowan and Roanoke rivers flow into Albemarle Sound; the former, which is made by the union of the Nottoway and Meherrin, admits small vessels to Murfreesboro', and the latter is navigable for sound craft for 30 miles. Both are navigable for boats a greater distance. The Tar and Neuse empty into Pamlico Sound. The Waccamaw passes into South Carolina; the Lumber and Yadkin also pass into that State, in which they are known as Great and Little Pedee.

8. The Catawba, which rises in the Blue Mountains, also flows into South Carolina, and there takes the name of Wateree. From the western slope of the same mountains flow New River, the Watauga, the French Broad, the Little Tennessee, and the Hiwassee, the waters of which, cutting through the Iron or Smoky Mountains, are ultimately carried off, and mingle with those of the Ohio and Mississippi, and join the ocean at a distance of 1,500 miles from the outlets of the waters rising from the opposite slope, and emptying into the Atlantic.



CHIMNEY ROCKS AND FRENCH BROAD RIVER.

9. To the northward, between the mainland and Narrow Beach Island, stretching down from Cape Henry, lies Currituck Sound, 50 miles long, and from 2 to 10 broad. West of this, running inland, is Albemarle Sound, 60 miles long, and from 5 to 15 broad; its waters are fresh, and not subject to tidal influences. These two sounds communicate with Pamlico Sound, which lies south of Currituck; it is 86 miles long, and from 10 to 20 wide, with a general depth of 20 feet, but shoals abound within it. It opens to the ocean through Ocracoke Inlet, the only navigable pass north of Cape Lookout. Beaufort or old Topsail Inlet, west of the cape, has 20 feet water, and is the best pass on the coast, and Beaufort the most eligible harbor in the State. Cape Lookout and Cape Fear indicate by their names the dangers that surround them. But the most formidable headland is Cape Hatteras, the elbow of a triangular island forming the seaward limit of Pamlico Sound. The whole series of islands which beset this coast are barren and desolate.

10. The low country consists of deposits of sand, similar and belonging to the same age (tertiary) as those of eastern Virginia and Maryland. These beds contain few minerals, but abound in shell deposits, marl, fossiliferous limestone, and bog-iron ore. A ledge of micaceous rock forms the line which divides the low from the upper country. West of this there is a belt of mica slate, chlorite slate, gneiss, and granite, and among the minerals of this section are hematitic iron ores, plumbago, and occasionally soapstone and serpentine. This strip is succeeded by a belt of sandstone, running southwesterly from Granville across the State. Freestones and grindstones are abundant in this formation, which also contains argillaceous iron and extensive coal measures. Next to this is situate the great slate formation, about 20 miles in breadth, and running in a direction northeast and southwest across the country. Within this district are also found numerous beds of porphyry, soapstone, serpentine, greenstone, and hone or whetstone slate. After the slate formation there succeeds next another belt of primary rocks, reaching nearly to the Blue Ridge, and in this is comprised the "gold region." The gold region of the Atlantic States is broader and more productive in this State than in any other. Iron ore is also found abundantly, chiefly in the form of magnetic oxyd. The coal-fields of North Carolina, chiefly in Chatham and Moore counties, and along the valley of Deep River, occupy a space of 200 square miles. Iron ore is found in juxtaposition with the coal measures, or overlying them. The State is also exceedingly rich in copper ores.

11. The climate is much influenced by the diversified character of the surface; in the low country the atmosphere is hot and moist. The western section, where the land is elevated, is, on the contrary, cold and dry. The interior has a climate approximating to both extremes, according to locality. The seasons throughout the State, however, are much less extreme than in the States north and south. The pine forests of North Carolina cover nearly the whole eastern section. In the plain this tree is almost the exclusive natural growth; in the swamps it attains an extraordinary bulk. Cedars and cypresses are abundant in the swamps. These forests contribute greatly to the general wealth, and furnish not only lumber for exportation, but nearly all the resinous matter used in the United States. In the elevated parts the growths are the oak, elm, walnut, cherry, lime, etc., and the maple, poplar, and some others, are indigenous in every section.



PINE FOREST.

12. In 1850 North Carolina contained 869,039 inhabitants, or 17.17 to the square mile, or 3.75 per cent. of the whole population of the Union. This population, which consisted of 105,451 families inhabiting 104,996 dwellings, was distributed into the counties as follows:

Counties.	Population.	County Seats.
Alamance	11,444	Graham.
Alexander	5,220	Taylorsville.
Anson	13,489	Wadesboro'.
Ashe	8,777	Jefferson.
Beaufort	13,816	Washington.
Bertie	12,851	Windsor.
Bladen	9,767	Elizabeth.
Brunswick	7,272	Smithville.
Buncombe	13,425	Ashville.
Burke	7,772	Morgantown.
Cabarras	9,747	Concord.
Caldwell	6,317	Lenoir.
Camden	6,049	New Lebanon.
Carteret	6,939	Beaufort.
Caswell	15,269	Yanceyville.
Catawba	8,862	Newton.
Chatham	18,449	Pittsboro'.
Cherokee	6,878	Murphy.
Chowan	6,721	Edenton.
Cleveland	10,396	Shelby.
Columbus	5,909	Whitesville.
Craven	14,709	Newbern.
Cumberland	20,610	Fayetteville.
Currituck	7,236	Currituck.
Davidson	15,320	Lexington.
Davie	7,866	Mocksville.
Duplin	13,514	Kenansville.
Edgecombe	17,189	Tarboro'.
Forsyth	11,168	Winston.
Franklin	11,713	Louisburg.
Gaston	8,073	Dallas.
Gates	8,426	Gatesville.
Granville	21,249	Oxford.
Greene	6,619	Snow Hill.
Guilford	19,754	Greensboro'.
Halifax	16,589	Halifax.
Haywood	7,074	Waynesville.
Henderson	6,853	Hendersonville
Hertford	8,142	Murfreesboro'.
Hyde	7,636	Swan Quarters.
Iredell	14,719	Statesville.
Jackson	(new.)	Webster.
Johnson	13,726	Smithfield.
Jones	5,038	Trenton.
Lenoir	7,828	Kingston.
Lincoln	7,746	Lincolnton.
McDowell	6,246	Marion.
Macon	6,389	Franklin.
Madison	(new.)	Marshall.
Martin	8,307	Williamstown.
Mechlenburg	13,914	Charlotte.
Montgomery	6,872	Troy.
Moore	9,342	Carthage.
Nash	10,651	Nashville.
New Hanover	17,668	Wilmington.
Northampton	13,335	Jackson.
Onslow	8,283	Onslow C. H.
Orange	17,055	Hillsboro'.
Pasquotank	8,950	Elizabeth City.
Perquimans	7,382	Hertford.
Person	10,781	Roxboro'.
Pitt	18,397	Greenville.
Polk	(new.)	Columbus.
Randolph	15,832	Ashboro'.
Richmond	9,818	Rockingham.
Robeson	12,826	Lumberton.
Rockingham	14,495	Wentworth.
Rowan	18,870	Salisbury.
Rutherford	13,550	Rutherfordton
Sampson	14,585	Clinton.
Stanley	6,922	Albemarle.
Stokes	9,206	Germantown.
Surry	18,443	Rockford.
Tyrrell	5,133	Columbia.
Union	10,051	Monroe.
Wake	24,888	Raleigh.
Warren	13,912	Warrenton.
Washington	5,664	Plymouth.
Watauga	3,400	Boone.
Wayne	13,486	Waynesboro'.
Wilkes	12,099	Wilkesboro'.
Yadkin and Yancey	(new.)	Yadkinville.
	8,205	Burnsville.

—of the total population 553,028 (63.64 per cent.) were whites—273,025 males and 280,003 females, 27,463 free colored—13,298 males and 14,165 females, and 288,548 slaves—144,581 males and 143,967 females; and of the free population (580,491) 577,750 (99.52 per cent.) were born in the United States, of whom 556,248 in this State; 2,524 (0.43 per cent.) were foreigners, and 217 were of unascertained nativity. The number of persons born in North Carolina and resident in other States was 283,077. In 1790 North Carolina had 393,751 inhabitants; in 1800, 478,103; in 1810, 555,500; in 1820, 638,829; in 1830, 737,987; in 1840, 753,419, and in 1850 (as above), 869,039. In 1855 the population was estimated at 922,979.

13. The number of free male persons over 15 years of age engaged in industrial pursuits in 1850 was 139,387—of these 30,613 were engaged in commerce, trade, manufactures, mechanic arts, and mining; 81,982 in agriculture; 28,560 in labor not agricultural; 1,659 in sea and river navigation; 2,263 in law, medicine, and divinity; 3,447 in other occupations requiring education; 570 in government civil service; 46 in domestic service, and 247 in unclassified occupations.

14. North Carolina is an agricultural State, but its industry is also much diversified. Its foreign commerce is comparatively small, but its internal trade is considerable, and several valuable manufactures, and mining operations are at the present day occupying public attention. Lumbering and the manufacture of naval stores are also distinguishing industries.

15. Copper, coal, and iron are the chief objects of the miner in North Carolina. Gold is also obtained in considerable quantities. Within the past few years the copper mines have been worked with success. Coal and iron, chiefly in the neighborhood of the constituents of Cape Fear River, are largely deposited, and are of excellent quality. These, as also the copper mines, are operated by incorporated companies.

16. The number of farms and plantations in North Carolina in 1850 was 56,963, covering 5,453,975 acres improved and 15,543,008 acres of unimproved land, or a total of 20,996,983 acres, being about two thirds of the whole surface. The total value of these lands was $67,891,766, and the value of implements and machinery thereon $3,931,532.

17. The cereal crops in 1840 and 1850 were (bushels) comparatively as follows:

1840	wheat,	1,960,855	rye,	213,971	oats,	3,193,941	corn,	28,893,763	barley,	3,574	buckwheat,	15,391
1850	"	2,130,102	"	229,563	"	4,052,078	"	27,941,051	"	2,735	"	16,704

—the potato crop amounted in 1840 to 2,609,239 and in 1850 to 5,716,027 (Irish 620,318 and sweet 5,095,709) bushels, and that of peas and beans in 1850 to 1,584,252 bushels.

18. The commercial staples of the State are tobacco, cotton, and rice. The production (pounds) in 1840 and 1850 was as follows:

1840	tobacco,	16,772,359	cotton,	51,926,190	rice (clear),	2,820,388
1850	"	11,984,786	"	20,218,000	" (rough)	5,465,868

—and in 1850 flax was produced to 593,796 pounds, and hemp to 39 tons. The other most characteristic staples of North Carolina are tar, resin, cordwood, etc., and the peanuts of commerce are chiefly brought from this State.

19. Otherwise the following are among the enumerated products of 1850—hay 145,653 tons, and beeswax and honey 512,289 pounds. The value of the products of market gardens in 1850 was $39,462, and of orchards $34,348.

20. The amount of livestock in the State in 1840 and 1850 is compared in the annexed:

1840	equines, 166,608	neat cattle,	617,371	sheep,	538,279	swine	1,649,716
1850	" 173,952	"	693,510	"	595,249	"	1,812,813

—in 1850 the equines consisted of 148,692 horses and 25,259 asses and mules, and the neat cattle of 221,799 milch cows, 37,309 working oxen, and 434,402 other cattle. The value of the whole livestock of 1850 was $17,717,647; and the value of animals slaughtered in the year had been $5,767,866. Butter 4,146,290 pounds, cheese 95,921 pounds, and wool 970,738 pounds, are enumerated in the census as the products of animals.

21. The total value of agricultural products in 1840 was $24,727,297, and in 1850 $31,712,146.

22. The number of mining, manufacturing, and mechanic establishments in this State in 1850 was 2,604, with an aggregate capital of $7,252,225, and employing 12,449 hands. The cost of the raw material consumed in the year was $4,805,463, and of labor $1,796,748; and the value of the manufactures produced was $9,111,245. About an eighth of the capital invested is employed in the cotton manufacture. In 1840 the aggregate manufactures of the State were valued at $5,821,323. Wilmington is the chief seat of this branch of industry.

23. The exports of North Carolina consist principally of naval stores, lumber, cotton, etc. The value of the exports from this State to foreign countries for the years ending 30th June, 1850 and 1855, was $416,501, and $433,818 in the years respectively; and of its imports $323,692 and $243,083. The shipping cleared in the same years amounted to 42,232 and 35,647 tons, and entered to 30,965 and 17,065 tons; while the shipping owned in the State amounted in 1850 to 45,218 (including registered 14,732 and steam 9,157) tons, and in 1855 to 60,076 (including registered 18,424 and steam 3,968) tons. The shipping built in the State amounted—in 1850 to 2,651 tons, and in 1855 to 2,594 tons. Wilmington is the principal port, and Newbern, Edenton, Elizabeth City, Beaufort, Washington, and Plymouth are ports used in the coasting trade.

24. The comparatively small direct foreign trade of this State implies a more extensive coasting trade, and hence we find that the great bulk of its commercial material is carried north to Baltimore, New York, etc., for transhipment, and its supplies of foreign goods are imported at the same ports and re-shipped in coasters to their destination. The trade of the interior is carried on chiefly by its railroads, which extend inland from the sea-board at Norfolk, Wilmington, and Beaufort.

25. The principal lines of railroad are—Wilmington and Weldon forming a north-and-south route, the Gaston and Raleigh and Seaboard and Roanoke which extend between the capital and the port of Norfolk; the Central, and the Atlantic and North Carolina which extends from the port of Beaufort *via* Goldsboro' and Raleigh to a connection with the South Carolina railroads at Charlotte, and the Wilmington and Manchester Railroad which passes into South Carolina, and in connection with other lines connects Wilmington with the south and southwest. Thus the railroad system of this State has three direct outlets seaward, and when the roads now in progress are built its connection with the whole West will be complete. The canals of North Carolina are chiefly of local value: the Dismal Swamp Canal secures to a large section in the northeast internal communication by water between Albemarle Sound and the port of Norfolk, and is also of great value to the lumber trade of that region; and the Clubfoot and Harlow's Creek Canal connects the navigation of the Neuse with Beaufort Harbor. The Deep and Cape Fear rivers have also been improved in their navigation, and the coal region of the Deep thus opened to the sea-board.

26. In 1850 North Carolina had eighteen and in 1855 twenty-eight banks and branches, with aggregate capital amounting in the years respectively to $3,789,250 and $6,031,945. The liabilities of these institutions in the two years consisted of—circulation $4,249,883 and $5,750,092; deposits $942,098 and $1,101,113, and other liabilities $65,507 and $245,542; and the assets of—loans and discounts $6,056,726 and $11,558,430, stocks $150,000 and $123,985, real estate $127,806 and $171,037, specie $1,645,028 and $1,360,995, and other assets $1,577,526 and $1,168,609.

27. The government of North Carolina is based on the constitution of 1776 as amended in 1835. The right to vote is granted to every free white male 21 years of age, who has resided in his district 12 months, and paid taxes; but to vote for a senator the party must also have owned a freehold of 50 acres of land in the same district.

28. The general assembly consists of a senate of 50 members and a house of commons of 120 members. The elections and sessions are held biennially. Representation is apportioned every 20 years—that for the house is based on federal population, and that for the senate on taxation.

29. The governor is elected by a plurality of the votes of the qualified voters for members of the house of commons, and holds office two years. A council of seven members assists the governor. The judiciary is vested in the supreme court, the superior or circuit courts, etc. The supreme court is mainly appellate in its jurisdiction. All judges of these courts are chosen in joint ballot by the general assembly.

30. The principal institutions supported in part or wholly by the State are the Insane Asylum and the Deaf and Dumb and Blind Asylum at Raleigh.

31. The ordinary revenue of the State is derived principally from taxation, dividends, and interest on investments, etc. For the year ending 31st October, 1855, the receipts of the treasury amounted to $2,452,137, which included sales of coupon bonds $1,473,370, and temporary loans $651,497; and the disbursements amounted to $2,323,979, which included subscriptions to railroads, etc., $1,427,021, and repayment of temporary loans $526,556, etc. The ordinary expenses of the State government amount only to about $85,000 a year.

32. In 1850 the State debt amounted only to $977,000, but in 1856 to $5,209,847, of which $5,038,802 was the amount of its bonded debt. At the latter period the State held productive property to the value of $4,616,274 secured by mortgage on railroads, etc. The State also owns a school fund amounting to $1,538,995.

33. The number of children attending school in 1850 was 111,430, or one to every 5.21 of the total free population. The condition of schools on 1st June of that year was as follows:

Classification.	Number.	Teachers.	Scholars.	Income.
Primary and public schools	2,657	2,730	104,095	$158,564
Academies and private schools	272	403	7,822	112,430
Universities and colleges	5	29	513	11,300

—making a total of 2,934 schools, 3,162 teachers, and 111,430 scholars, and the income of all amounted to $282,294. The number of free persons over 20 years of age who could not read and write was 80,423, of which 73,566 were whites, and 6,857 free colored persons; and 80,083 were natives and 340 foreigners. Thus in a free population of 580,491, North Carolina has 80,423 illiterate adults, or 13.86 per cent. of the whole number. This is a higher ratio than in any other of the United States.

34. The principal collegiate institutions in the State, with their statistics in 1855, are as follows:

Institutions.	Location.	Founded.	Professors.	Students.	Libraries.
University of North Carolina	Chapel Hill	1789	15	360	15,000
Davidson College	Mechlenburg Co	1838	6	86	6,500
Wake Forest College	Forestville	1838	5	76	5,000
Law Depart. University of N. C.	Chapel Hill	1845	1	10	Univ. Lib.

35. The most numerous religious denominations in North Carolina are the Methodists and Baptists, which together include three fourths of the whole population; Presbyterians rank next and include about one tenth; and then the Lutherans, Episcopalians, Free Church, Friends, and Christian Church, and after these the German Reformed and Moravian churches. The Church of Rome has scarcely a representation, having had in 1850 only four small congregations. The whole number of churches in 1850 was 1,795, with accommodations for 572,924 persons; and the total value of church property was $905,553.

36. The principal cities and towns in the State are Wilmington, Fayetteville, Newbern, and Raleigh. Their population at various times has been as follows:

Cities, etc.	1800.	1810.	1820.	1830.	1840.	1850.	1855.
Wilmington	1,689	?	?	2,706	4,744	7,264	10,000
Fayetteville	1,656	?	3,532	2,868	4,285	4,646	5,500
Newbern	2,467	?	?	3,776	3,690	4,681	6,000
Raleigh	660	?	?	?	2,244	4,518	5,000

—and the following are also places of consideration—Oxford, which in 1850 had 1,978 inhabitants; Charlotte 2,500; Edenton 1,607; Greenville 1,893; Smithville 1,464; Plymouth 951; Ashville 502; Morgantown 558; Rutherfordton 484; Smithfield 329; Kingston 455, etc.

37. Raleigh is situated in latitude 35° 47′, and longitude 78° 48′, and 140 miles north-by-west from Wilmington. It occupies an elevated site a few miles west of Neuse River, and consists of a central square of 10 acres, from which extend four main streets, 99 feet wide, dividing the city into quarters, and in the middle of each of these is a square of four acres, from which proceed streets 66 feet wide. The State House, on the central square, is said to be the finest building of its kind in the Union except, perhaps, the new State House at Columbus, Ohio. It is ostensibly a copy of the Parthenon at Athens. The other principal buildings are the official residences, and the State Deaf and Dumb Asylum and the State Lunatic Asylum. It is a place of considerable trade; and at this point the Raleigh and Gaston Railroad connects with the North Carolina Railroad, giving the town access to the sea-board at Wilmington, Beaufort, and Norfolk, and also with the West and with the railroads of South Carolina.

38. Wilmington is situated on the east bank of Cape Fear River, just below the entrance of its north branch, 34 miles from the sea. Latitude 34° 11′, and longitude 78° 10′. It is the largest and most important city of the State. The site is low, marshy, and unhealthy, but well adapted for trade. The harbor has a shoal at its entrance, and does not admit of the entrance of vessels of more than 300 tons burden. The shipping of the district in 1850 was 15,198 tons, and in 1855, 20,162 tons. In the foreign trade the clearances in the same years were 31,098 and 26,184 tons, and the entrances 20,670 and 9,700 tons. The coasting and river trade are of far greater value than the foreign trade. The principal exports are lumber, turpentine, naval stores, peanuts, etc., amounting annually to about $5,000,000. There is daily communication with Charleston, S. C., by steamboat, and several steamboat lines to and from Fayetteville. The railroads coming in here are the Wilmington and Weldon Railroad, a link in the great Southern line, and connecting with the Charleston steamers; and the Wilmington and Manchester Railroad, which extends southwest into South Carolina, and at Kingsville, in that State, connects with the South Carolina Railroad, and at Florence with the Northeastern Railroad for Charleston. The manufactories of the town are extensive, and consist principally of saw and planing mills, turpentine distilleries, machine shops, rice mills, etc., in all employing between 20 and 25 steam-engines. The progress of the town has been more rapid of late years than formerly, owing to its added facilities for trading with the interior.

39. Fayetteville is situated at the head of uninterrupted navigation of Cape Fear River, 100 miles above Wilmington. Latitude 35° 3′, and longitude 79° 58′. It is regularly laid out in wide streets, and contains the county buildings and an arsenal of construction. It is the center of a considerable trade, which has been greatly facilitated by the improvement of the upper course of the river by locks and dams, and by the building of plank roads. The pine forests of the vicinity supply its chief exports in the form of lumber, turpentine, tar, etc., which are sent down the river to Wilmington.

40. West of Fayetteville, and on the line of the North Carolina Railroad, is Charlotte, the center of the gold mining region (and the seat of a branch of the United States Mint for the coinage of gold), and the point of connection of the North Carolina railroads and those of South Carolina; farther north is Salisbury, a thriving town and point of divergence of the Western Railroad, and still farther north are the towns of Lexington and Greensboro', from the latter of which a short railroad is projected to Danville, Va., there to connect with the Richmond and Danville Railroad. The Atlantic and North Carolina Railroad extends from Goldsboro' (where it connects with the North Carolina Railroad, and also with the Wilmington and Weldon Railroad) to Beaufort, on the Atlantic, passing through Newbern. Goldsboro' is a town on the Neuse, and was only founded in 1841; it has already a population of 2,000, and a flourishing trade.

41. Newbern is, next to Wilmington, the largest town of the State. It is situated at the confluence of the Neuse and Kent rivers, 50 miles above Pamlico Sound, in latitude 35° 20′, and longitude 77° 5′. Newbern has a considerable trade in grain, lumber, turpentine, etc., chiefly coastwise, but between 20 and 30 vessels enter and clear in the foreign trade annually. The Neuse River is navigated by steamboats for eight months in the year as far as Goldsboro'.

42. Beaufort, at the mouth of Newport River, a few miles from the sea, and 11 miles northwest of Cape Lookout, is noted for its safe and capacious harbor, the best in the State.

It has hitherto been kept back for want of means of communication with the interior, and has still but a small population. The completion of the railroad will be the signal for its advance, and its excellent port will become the scene of a busy commerce. The entrance to it is by Old Topsail Inlet.

43. The only other towns requiring notice are—Edenton, at the head of Eden Bay, where the Chowan opens into Albemarle Sound; Elizabeth City, on the Pasquotank, 20 miles above Albemarle Sound: vessels drawing seven feet ascend to this place, and it has communication with the Hampton Roads by means of the Dismal Swamp Canal; Elizabeth Town, on Cape Fear River, 40 miles above Wilmington; Greenville, on Tar River, 35 miles above Pamlico Sound; Halifax, on the Roanoke, seven miles below the great falls, and at the head of sloop navigation: it is a place of considerable trade, which is facilitated by the Wilmington and Weldon Railroad, and also by river improvements, which continue boat navigation for 130 miles above the town; Lincolnton, on the Little Catawba River, which has manufactures of cotton, paper, iron, etc.; Oxford, 40 miles north Raleigh, the seat of a Baptist female college, and a place of considerable trade; Plymouth, near the Roanoke, a few miles above Albemarle Sound: it has a large lumber trade, and is engaged in the building of coasting vessels; Smithville, on the left bank, and at the mouth of Cape Fear River, opposite Smith's Island; Tarboro', on the Tar River; Washington, at the confluence of the Tar with Pamlico River. The last-named town has a considerable coasting trade, and vessels drawing nine feet water can load and unload at its wharves. The towns of the coast region are almost wholly engaged in the export of lumber and other products of the pineries.

44. The first English settlement in America was made by Sir Walter Raleigh on Roanoke Island, in this State, in 1585, but was abandoned the following year. Two subsequent attempts at settlement also failed. In 1709 Carolina was granted by Charles II. to Lord Clarendon and others. Previously to this, however, emigrants from Virginia had settled in the north part of the province. In 1709 a German colony founded Newbern. From this period to 1729, when the king purchased the colony, many other settlements were made. The colony was now divided into two provinces, with separate governments. On the 4th of November, 1769, the Assembly of North Carolina declared against England's right to tax the colonies, and, in spite of the governor's opposition, the State was subsequently (September, 1774) represented in the first Continental Congress. The citizens of Mechlenberg County formally declared the independence of the State on the 21st of May, 1775, and by this and such acts North Carolina was among the foremost of the colonies in bringing about the Revolution. The constitution, signed at Halifax, 18th of December, 1776, is still the basis of the government. Tennessee was originally within the charter limits of North Carolina.

STATE OF SOUTH CAROLINA.



COTTON PLANT

1. South Carolina is situated between latitudes 32° 4′ and 35° 12′ north, and longitudes 78° 25′ and 83° 19′ west; and is bounded on the north by North Carolina, on the east and southeast by the Atlantic Ocean, and on the south and southwest by Georgia.

2. This State lies in the form of a triangular wedge between North Carolina and Georgia, having the ocean line for its base, which has a length of about 220 miles. The extreme extent of the State, east and west, is about 260 miles, and the area is computed at 29,385 square miles. The shore-line has a length of 220 miles, and including bays, etc., a length of 267 miles, or of one mile to every 110 square miles of surface.

3. The coast region, for 100 miles from the ocean, is covered with forests of pitch pine, intersected with swampy tracts, and permeated by sluggish streams. In this respect it assimilates the whole southeastern coast region. Beyond this, and parallel to it, is a belt of territory, called the "middle country," consisting of low sand-hills, resembling the waves of an agitated sea. This tract occasionally presents an oasis of verdure, or a plantation of maize, but otherwise it is forbidding to the agriculturist. The middle country is bounded westward by another belt called the "ridge," where the land rises by a steep and sudden elevation, and afterward continues gradually to ascend. Beyond the surface exhibits a beautiful alternation of hill and dale, interspersed with extensive forests, and watered by pleasant streams. There are a few lofty mountains in the western part, belonging to the Blue Ridge. Table Mountain, in this chain, rises to the height of 4,000 feet. King's Mountain, in York District, lies partly in North Carolina, and is an isolated eminence of inconsiderable elevation.

4. The principal rivers of South Carolina have their rise in the Blue Ridge. The Great Pedee, which bears the name of Yadkin in North Carolina, reaches Winyaw Bay, after having received the waters of Lynch's Creek and Black River from the right, and the Little Pedee and Waccamaw from the left. It is navigable for steamboats to Cheraw, above which there is a fall of 15 feet in 18 miles. The Santee, the largest river of the State, is formed by the junction of the Catawba or Wateree and the Congaree, and it reaches the sea without receiving any considerable tributary, by two mouths. Steamboats ascend it to Camden and Columbus, and by the aid of canals there is navigation for boats to the mountains. The Congaree is itself formed by the junction of two considerable navigable streams, the Saluda and the Broad rivers. The Edisto, Cambahee, and Coosawatchie are smaller streams in the southern part of the State, navigable for some distance by small vessels. Ashley River is navigable for schooners for 20 miles, and Cooper's River, which it joins at Charleston, 30 miles to the Santee Canal. Although most of these rivers are navigable, as a general thing their lower courses are shallow, and obstructed by bars.

5. The harbors of South Carolina, with few exceptions, are almost valueless to commerce; but the coast presents numerous entrances, which are accessible to small vessels, and which afford advantages to an extensive and active coasting trade. The harbor of Charleston is obstructed by a dangerous sand-bar, and that of Georgetown will only admit small craft. The harbor of Beaufort or Port Royal is the best in the State, and is sufficient to receive a navy, but is little frequented. Stone Inlet has nine or ten feet of water. St. Helena Sound is the most spacious opening for a great distance along the coast, but although about 3 miles wide and 10 long, it is too much beset by shoals to be of any great commercial value.



TABLE MOUNTAIN.

6. The southern part of the coast is skirted by a range of islands, separated from the mainland by narrow channels, which afford an inland steamboat navigation from Charleston to Savannah. These islands, like the neighboring continent, are low and flat; but are covered with forests of live oak, pine, and palmettoes, and they yield the black seed or Sea Island cotton. The long sand beaches, which border these islands toward the sea, are haunted with myriads of wild-fowl.

7. The primitive region of the western part of the State belongs to the auriferous belt of the Atlantic slope, and for a number of years past the production of gold has been such as to encourage the miner to continue his pursuits. In several cases large nuggets of native metal have been dug up, but the largest quantities have been obtained from washings. Iron is also abundant in this section, and in quality the ore is not surpassed. Coal is not found within the State.

8. Regarding the minerals used as building material, Prof. Tuomey says, "it is owing to the difference in the facilities for transportation that the granite, marble, and flag-stone of Massachusetts and Connectict are better known in Charleston and other cities, than those of South Carolina, notwithstanding the abundance and quality of the latter." * * * "Among the beautiful granites of the State, the porphyritic granite of Camden and Buffalo Creek, and the red granite near Columbia are conspicuous. Of the sienites, those found in Abbeville, Fairfield, and Lexington are the most beautiful. The former resembles the Quincy granite, and the latter is remarkable for its white feldspar, contrasting so strikingly with the black crystals of hornblende. The white and variegated marbles of Spartanburg and Laurens form excellent materials for building and ornamental purposes." * * * "Gneiss, besides furnishing an excellent building stone, is often sufficiently slaty in its structure to allow of being split into slabs. A fine quarry of this sort is open at Pickens. In the lower part of York, gneiss is found, having a similar structure: it passes into mica slate, which presents every appearance of making excellent flag-stone." * * * "The mica slate found in Fairfield is equally promising." Soap-stone of very fine quality is found at some of the above-named localities.

9. Porcelain earth abounds through the primary region, wherever the feldspathic granite is found in a state of disintegration. It occurs above Pendleton; along the base of the mountains, in Pickens; near Cherokee Ford, where it is used as a fire-clay, and on the branches of King's Creek. But the finest exposures of this earth are found in the diluvium. Sand of fine quality for the manufacture of glass is also abundant. Red and yellow ochres abound in Chesterfield; and there are many localities where the micaceous and talcose rocks occur. Many of the precious stones are also found in various parts of the State.

10. Between the primitive and alluvial formation, the State is nearly equally divided. While local differences are everywhere observable, the surface and soil of the upper districts present a great similarity; and this is equally true of the lower districts. In the former the lands are broken and hilly—in the latter level; oak is the natural growth of the one—pine of the other. Clay is the soil of much the largest portion of the State; and, except in the immediate vicinity of the ocean, is almost the universal substratum. A close, stiff land predominates generally in the southeast, and an open sand on the sea islands. The highlands of the country, above the falls of the rivers, are naturally much superior to those of the pine-covered regions, but the alluvial bottoms of the former are greatly surpassed in richness by the river swamps of the latter.

11. South Carolina is most favorably situated. Midway between the frozen regions of the north and the burning heats of the tropics, in her climate, seasons, and productions she enjoys most of the advantages of all. In richness, variety, and abundance, perhaps no part of the habitable globe, of the same territorial extent, exceeds South Carolina. Of the four great materials for human clothing—cotton, wool, silk, and flax, her soil and climate are peculiarly adapted to the first three, and in localities to the last. Of the prominent articles of food, she produces rice wheat, Indian corn, oats, rye, barley, sweet and Irish potatoes, etc.

While the woods abound in game, including deer and turkey, the ocean, which laves her southern border, and the numerous streams, both salt and fresh, that penetrate every part of her surface, yield almost every variety of the choicest fish. In relation to medicinal and culinary plants, her catalogue is large. Tobacco, indigo, and hemp were once staple commodities, and have only given place to the cotton and rice culture, which now distinguishes her economy. So remarkable, indeed, is the topographical condition of the State, that wheat and sugar-cane grow profitably side by side, and the olive and orange ripen under the care of the same family of cultivators. Wheat is cultivated as low as 32° 30′; and from bleak cold winds, the northern side of the Glassy Mountains will not produce maize.

12. In 1850 South Carolina contained 668,507 inhabitants, or 22.75 to each square mile, or 2.88 per cent. of the total population of the Union. This comprised in 52,937 families inhabiting 52,142 dwellings, was distributed into the districts as follows:

Districts.	Population.	District Seats.	Districts.	Population.	District Seats.	Districts.	Population.	District Seats.
Abbeville	32,318	Abbeville.	Fairfield	21,404	Winnsboro'.	Newberry.....	20,143	Newberry.
Anderson	21.475	Anderson.	Georgetown ..	20,647	Georgetown.	Orangeburg...	23,582	Orangeburg.
Barnwell	26,608	Barnwell.	Greenville	20,156	Greenville.	Pickens	16,904	Pickens.
Beaufort.....	38,805	Gillisonville.	Horry	7,646	Conwaysboro'	Richland	20,243	COLUMBIA.
Charleston....	83,844	Charleston.	Kershaw	14,473	Camden.	Spartanburg ..	26,400	Spartanburg.
Chester.....	18,038	Chesterville.	Lancaster.....	10,988	Lancaster.	Sumter	33,220	Sumterville.
Chesterfield...	10,790	Chesterfield.	Laurens	23,407	Laurensville.	Union	19,852	Unionville.
Colleton	28,466	Walterboro'.	Lexington	12,930	Lexington.	Williamsburg .	12,447	Kingstree.
Darlington ...	16,830	Darlington.	Marion	17,407	Marion.	and		
Edgefield.....	39,262	Edgefield.	Marlboro'.....	10,789	Bennettsville.	York	19,433	Yorkville.

—of the total population 274,563 (41.07 per cent.) were whites—137,747 males and 136,816 females, 8,960 free colored—4,131 males and 4,829 females, and 384,984 (57.59 per cent.) slaves—187,756 males and 197,228 females; and of the free population (283,523) 274,813 or 92.96 per cent.) were Americans, of whom 262,160 were born in this State; 8,662 (3.06 per cent.) were foreigners, and 48 of unascertained origin. The number of natives in South Carolina in other States was 186,479. In 1790 South Carolina had 249,073 inhabitants; in 1800, 354,591; in 1810, 415,115; in 1820, 502,741; in 1830, 581,185; in 1840, 594,398; and in 1850 (as above), 668,507. In 1855 the population was estimated at 705,661.

13. The number of free male persons over 15 years of age engaged in industrial pursuits in 1850 was 68,549. Of these 13,205 were engaged in commerce, trade, manufactures, mechanic arts, and mining; 41,302 in agriculture; 8,151 in labor not agricultural; 346 in navigation; 1,829 in law, medicine, and divinity; 3,161 in other pursuits requiring education; 372 in government civil service; 149 in domestic service, and 34 in occupations not classified.

14. In 1850 South Carolina contained 29,967 farms and plantations, which inclosed 16,217,600 (4,072,551 improved and 12,145,049 not improved) acres of land, and were valued at $82,431,684. The value of implements and machinery in use was $4,136,210.

15. The cereal crops (in bushels) of 1850 as compared with those of 1840 were as follows:

1840	wheat, 968,354	....	rye, 44,738	....	oats, 1,486,208	....	Indian corn, 14,722,805	....	barley, 3,967	....	buckwheat, 72
1850	" 1,066,277	....	" 43,790	....	" 2,322,155	....	" 16,271,454	....	" 4,583	....	" 288

—and other food crops in 1850 were potatoes (Irish 136,494 and sweet 4,337,469) 4,473,960 bushels, peas and beans 1,026,900 bushels, etc.; and the hay crop amounted to 20,925 tons.

16. The following were the staple Southern crops for the two years:

1840	cotton, 61,710,274 lbs	.....	clean rice, 60,590,861 lbs.	.....	tobacco, 51,519 lbs.						
1850	" 120,360,400 "	.....	rough " 159,930,613 "	.....	" 74,285 "						

—and in 1850 there was produced 77,000 pounds of cane sugar.

17. And among the miscellaneous productions (1850) are enumerated—beeswax and honey 216,281 pounds, wine 5,880 gallons, etc. The value of market-garden products was $47,286, and of orchard products $35,108.

18. The quantity of livestock owned in the State in 1840 and 1850 compares as follows:

1840.....	equines, 129,921	.....	neat cattle, 572,608	.....	sheep, 232,981	.....	swine, 878,532				
1850.....	" 134,654*	.....	" 777,686†	.....	" 285,551	.....	" 1,065,503				

—and the value of animals slaughtered during the year next preceding 1850 had been $3,502,637. The total value of the livestock of 1850 was $15,060,015. The quantity of butter produced was 2,981,850 pounds, and of cheese 4,970 pounds. The wool crop amounted to 487,233 (in 1840, 299,170) pounds.

19. The total value of the agricultural products of South Carolina in 1840 was $20,555,919, and in 1850 $30,068,154.

20. In 1850 there were in this State 1,431 manufacturing, mining, and mechanic establishments, in which was invested an aggregate capital of $6,056,865, and which gave employment to 7,009 hands. The value of the raw material consumed in the year was $2,809,534, and the cost of labor $1,128,432. The manufactured products were valued at $7,063,513. Among the establishments were 18 cotton-mills consuming in the year 9,929 bales of cotton, and producing goods to the value of $748,338. In 1810 the whole products of the manufactories of this State were valued at $2,216,212, and in 1840 at $4,708,120.

21. The total value of goods produced in families was—in 1840 $909,525, and in 1850 $930,703.

22. The total exports to foreign countries for the year ending 30th June, 1850, amounted to $11,447,800, and in 1855 to $12,700,250; and the total value of the imports was $1,933,785 and $1,588,542. The chief articles of export are cotton and rice. The shipping cleared in the same years amounted to 125,052 and 144,947 tons, and the shipping entered to 96,916 and 90,423 tons. The shipping owned in the State amounted in 1850 to 36,072 tons, including 17,126 tons registered and 7,455 tons steam; and in 1855 to 60,935 tons, including 34,468 tons registered and 10,602 tons steam. Ship-building is carried on to a very small extent—in 1855 only one vessel of 61 tons was built.

23. The coasting trade is very extensive, and as a large share of the commerce of the State is transacted through Northern ports, this department is of far greater value than the direct foreign commerce. The interior is traversed in every direction by railroads, which secure to it besides an ever increasing internal trade a share in the transit between the seaboard and southwest. Steamers also ply regularly to the principal ports of the Atlantic, and for several years a line has been maintained in the Cuba trade.

24. Columbia, the capital, is the center of the railroad system of this State. From this point lines diverge in every direction; to the north into North Carolina; eastward to Wilmington and Charleston, and westward *via* Anderson into Tennessee. The great Southern coast-line also passes through this State from Wilmington to Charleston and Savannah, and from Charleston a line is carried westward to Hamburg, where it joins the Georgia lines passing into Alabama, etc. Thus South Carolina has a very complete system which with its several branches spreads its arms to every section of the State, and which in conjunction with the lines of the adjoining States brings its interior into close connection with every section of the sea-board and the South and West. There are also several canals in this State which, by improving and connecting river navigation, are of great benefit to internal trade. The total length of railroad completed and in operation in 1855 was 840 miles, or one mile to every 35 square miles of surface.

25. In 1850 South Carolina had fourteen banks and branch banks with capital amounting to $13,139,571, and in 1855, twenty such institutions with capital amounting to $17,516,600. The liabilities at these two periods consisted of—circulation $8,741,765 and $6,504,679, deposits $2,322,132 and $3,068,188, due to other banks $2,047,777 and $1,100,299, and other liabilities $642,231 and $46,532; and the assets consisted of—loans and discounts $20,601,137 and $22,238,900, stocks $1,849,463 and $3,483,011, real estate $377,571 and $600,880, due by other banks $2,850,942 and $1,057,476, specie $1,711,902 and $1,228,221, and other assets $1,302,901 and $1,375,967.

26. The government of South Carolina is based on the constitution of 1790. By this instrument the right of voting is conferred on every free white male citizen 21 years of age, resident in the State two years and owning a freehold of 50 acres, etc. The general election is held on the 2d Monday of October annually.

27. The legislature consists of a senate of 45 members and a house of representatives of 124 members, and meets annually on the 4th Monday in November. Senators are chosen for four years, one half biennially, and representatives for two years, and in both cases must be citizens, residents, and freeholders, etc.

28. The governor is chosen by joint ballot of both houses for two years, and is ineligible for re-election for the next four years. He must be 30 years of age, a citizen of and for the last 10 years resident in the State, and be possessed of a freehold of the clear value of £1,500 sterling. If the office of governor become vacant it is filled by the lieutenant-governor, and after him by the president of the senate, until a new governor is elected by the legislature.

29. The judiciary consists of the court for the correction of errors, law courts of appeals, equity courts of appeals, courts of common pleas and general sessions, and courts of equity. Judges and chancellors elected by joint ballot of both houses hold their commissions during good behavior. Besides the courts enumerated, each district has its own court of ordinary; and Charleston has a special court of limited jurisdiction. For the trial of slaves and free persons of color there are courts of magistrates and freeholders, etc.

30. The revenue of the State is derived principally from taxation. For the years ending 30th September, 1850 and 1855, the income from this source amounted to $313,381 and $377,502, and the total resources for those years amounted to $600,292 and $621,693. The expenditures of the years respectively was $540,864 and $484,883. The public debt on the 1st October, 1855, amounted to $2,287,156, and the annual interest thereon to $124,476. The State is also liable as guarantee for bonds of several internal improvement companies, etc., to the amount of several millions. To meet this indebtedness the State is possessed of productive property valued at $4,683,473. The value of taxable property in the State in 1850 was $283,867,709, and in 1855 $303,434,240.

31. In 1850 the whole number of children attending the various educational institutions of the State was 40,373, or one in every 7.02 free inhabitants. The statistics of such institutions on the 1st June, 1850, were as follows:

Classes of Schools.	Number.	Teachers.	Scholars.	Income.
Primary and public schools	724	739	17,838	$200,600
Academies and private schools.....	202	333	7,467	26,025
Universities and colleges.....	8	43	720	104,790

—making a total of 934 schools, 1,115 teachers, and 26,025 scholars, and an annual income of $331,415. Academies are established called Arsenal and Citadel Academies, in which the youth are practically educated in military tactics and in engineering and surveying. The number of free persons over 20 years of age unable to read and write in 1850 was 16,564, of which 15,684 were whites and 880 free colored persons, and 16,460 were Americans and 104 foreigners.

32. The principal collegiate and professional schools in South Carolina in 1855 were as follows:

Institutions.	Location.	Founded.	Professors.	Students.	Libraries.
Charleston College.....	Charleston.....	1785.....	6	70.....	2,500
South Carolina College	Columbia.....	1804.....	8.....	120.....	22,000
Southern Theol. (Presb.) Sem.....	Columbia.....	1831.....	5.....	32.....	5,500
Theological (Luth.) Seminary	Lexington	1835.....	2.....	10.....	2,000
Furman Theol. (Bapt.) Sem.	Fairfield District	1825.....	2.....	30.....	1,200
Seminary of St. John Baptist	Charleston.....	1849.....	5.....	—.....	—
Med. Coll., State of S. Carolina....	Charleston.....	1833.....	8.....	158.....	—

—and among the colleges may be noted the State Military Institute at Columbia.

33. The most numerous of the religious denominations of this State are the Baptist and Methodist, together including three fourths of the inhabitants. After these rank the Presbyterian, Episcopal, and Lutheran denominations, and then the Roman Catholic, which numbers about one per cent. of the whole population. The whole number of churches in the State in 1850 was 1,182 with accommodation for 460,530 persons, and the value of church property was $2,172,246.

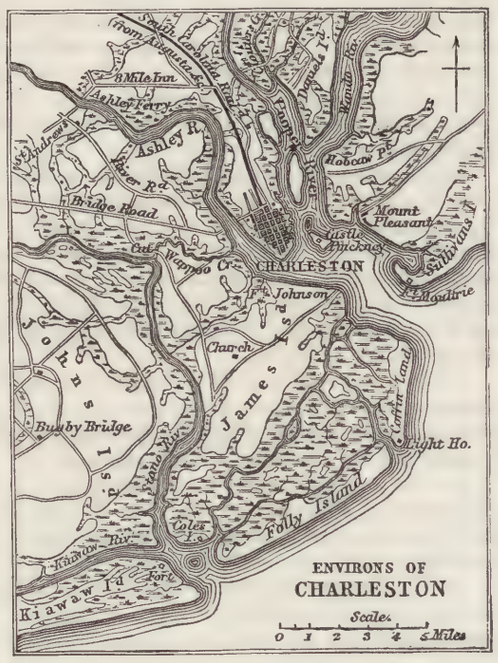
34. Columbia, the State capital, is situated on the left bank of the Congaree, immediately below the confluence of the Saluda and Broad rivers. Latitude 35° 57′, and longitude 81° 7′. The city stands on an elevated plain, and is regularly laid out in streets 100 feet wide. Its foundation dates from 1787. The principal buildings are the State House, which is 170 feet long and 60 feet wide, the State Lunatic Asylum, South Carolina College, etc., and the district and municipal establishments. The college edifices are extensive, but devoid of architectural merit. There is also in the city a theological school under the Presbyterians. The vicinity is a highly cultivated cotton and corn district, and the town itself the central depôt of a wide region traversed by the principal railroads of the State, which connect it with Charleston on the east; Hamburg and Georgia, etc., on the west: North Carolina on the north; and also

* Namely, 97,171 horses and 37,483 asses and mules.

† Namely, 193,244 milch cows, 20,507 working oxen, and 563 935 other cattle

with the whole northwestern part of the State. The river is navigable to the city for light draft boats. The town is well supplied with pure water.

35. Charleston, the metropolis and chief commercial city, is built on a tongue of land formed by the confluence of the rivers Ashley and Cooper, in lat. 32° 46′ 33″, and long. 79° 55′ 38″. The harbor, which is spacious and convenient, is formed by the estuary of the two rivers, and is protected from the Atlantic by Sullivan's Island on the north and Folly Island on the south. The entrance, which is between these two islands, is obstructed by a range of sand-banks, which makes two channels, by which vessels drawing 16 feet of water may enter the port, but the passage is rendered difficult and uncertain by the tides and the shifting of the sands. Cooper and Ashley rivers are from 30 to 40 feet deep: the first 1,400 and the latter 2,100 feet wide. The whole is protected by Castle Pinkney and Fort Johnson, below the city, each on an island, and by Fort Moultrie, on Sullivan's Island.



36. The site on which Charleston is built is elevated only eight or nine feet above tide, which here rises about six feet; and in the summer season is very unhealthy, especially for strangers from the north. It is a regularly built city, about two miles in length and a mile and a half in width. The streets, usually from 60 to 70 feet wide, traverse lengthwise, and from river to river crosswise, parallel with each other, and are adorned with shade trees. The dwellings are generally embowered in shrubbery and ornamented with vines, while the gardens attached to them are adorned with peach, orange, and other Southern trees. The principal buildings are those of the Medical College of the State, the Charleston College, the Literary and Philosophical Society, the Apprentices and City libraries, etc., and numerous schools and churches; also an orphan asylum, alms-house, etc.

37. Charleston, though chiefly a commercial city, has also extensive industrial establishments, among which may be noted its cotton presses, engine factories, ship-yards, etc. The dry-dock at this port is capable of receiving the largest vessels with their cargoes. The chief exports of Charleston are cotton, rice, and lumber. In 1850 the clearances in the foreign trade amounted to 121,367 tons, and in 1855 to 140,014 tons; and the entrances for the same years were 96,619 and 88,833 tons. This comparatively small tonnage is accounted for by the fact that the great bulk of the trade of the city is transacted through Northern ports, and the coasting trade thus counterbalances in its extent the deficit in the foreign trade properly belonging to this port. The value of the exports to foreign countries direct does not usually exceed twelve million dollars, while the actual exports amount to thrice that sum. For carrying on this coastwise trade, there are well-provided lines of steamships plying between Charleston and the principal ports northward, namely, Baltimore, Philadelphia, New York, etc. Regular lines of packets also sail to and from the ports north and south.



CITY OF CHARLESTON.

38. The inland trade of the city is facilitated by the Santee Canal, which connects the port with the Santee River navigation, and by the very complete system of railroads which diverge from this point, and, spreading over the State, reach back to the Mississippi River. The financial institutions connected with the trade of this port are nine joint stock and six or seven private banks, with an aggregate capital of $20,000,000, and several insurance companies, also a provident institution for savings. Charleston was founded in 1672, and received a city charter in 1783. In 1790 it contained 16,357 inhabitants; in 1800, 18,711; in 1810, 24,711; in 1820, 24,780; in 1830, 30,289; in 1840, 29,261; and in 1850, 42,985. It has now (1855) at least 50,000. This is exclusive of St. Philip's Parish or the Neck, which is, however, virtually a suburb of the city, and contains 16,000 to 18,000 inhabitants. The total value of real estate in the city in 1854 was $24,192,650.

39. Georgetown, at the upper end and on the west side of Winyaw Bay, contains 2,904 inhabitants. It is the next, and, indeed, the only other, frequented port in the State after Charleston. It has comparatively little foreign commerce, but a considerable coasting trade. The harbor admits vessels drawing 11 feet of water. Beaufort, a sea-port on the west side of Port Royal River, an inlet of the Atlantic, 16 miles from the sea, has a good harbor, but, its mouth being obstructed, vessels drawing over 11 feet water can not enter it. It has little or no commerce, and the site is unhealthy: population 879.

40. Camden, on the Wateree, 31 miles northeast Columbia, is an active business place of 1,143 inhabitants, and contains the district buildings, an arsenal, masonic hall, etc. The river is here navigable for vessels of 70 tons, and the commerce of the place is further facilitated by the Camden Branch Railroad, which leaves the South Carolina Railroad at Kingsville, 37 miles south-by-west. Some manufactures are carried on; and it is noted as the scene of two engagements in the War of Independence.

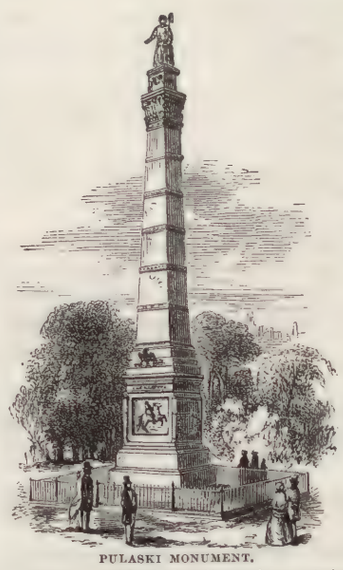
41. Cheraw, at the head of steamboat navigation of the Great Pedee, is a place of some importance as a cotton mart, and is connected by railroad with Wilmington and Charleston. Florence is a small but important town on the line of the Wilmington and Manchester Railroad, 107 miles west-southwest from Wilmington; and is also the point of connection of the Cheraw and Darlington and the Northeastern railroads, 102 miles north Charleston.

42. Hamburg, on the Savannah River, opposite Augusta, Ga., with which it is connected by a bridge 1,000 feet long, and by a railroad viaduct, contained, in 1850, 1,070, and in 1855 about 2,000 inhabitants. The South Carolina and Georgia railroads connect by the bridge, and together form a portion of the great chain from Charleston to Memphis. Hamburg consists of a lower town, which lies by the river and contains the business houses, and an upper town, which stands back from and 60 to 70 feet above the lower town. It is an important cotton mart and has a large inland trade. Steamboats ply regularly to and from Savannah.

43. The other more important towns of this State are Abbeville with 1,250 inhabitants; Anderson with 1,000; Chester with 982; Cokesbury with 878; Edgefield with 2,000; Greenville with 1,305; Laurensville with 1,000; Newberry with 1,250; Spartanburg with 1,176; Sumterville with 1,356; Unionville with 554; Winnsboro' with 1,050, and Yorkville with 511.

44. In 1663 Charles II. granted to Lord Clarendon and others the province of Carolina, which had previously been attached to Virginia. In 1670 a company of colonists located at Port Royal, but removed in the year following to old Charleston, and again, in 1680, to the present site of Charleston. The government was vested in the proprietors until July, 1729, when the Carolinas were purchased by the king and formed into two separate colonies. South Carolina now received large accessions of immigrants; the colony, however, at various times, suffered greatly from Indian depredations. From 1762 to 1775, when the first constitution was formed, it enjoyed uninterrupted peace; but in the Revolution it was the scene of warfare, and many severe battles were fought within its borders. The victory of Eutaw Springs, in 1781, terminated the war within the State, and contributed much to the successful issue of the contest.

STATE OF GEORGIA.



PULASKI MONUMENT.

1. Georgia lies between latitudes 30° 22′ and 35° north, and longitudes 80° 48′ and 85° 40′ west; and is bounded on the north by Tennessee and North Carolina, on the northeast by the Savannah River and South Carolina, on the east by the Atlantic Ocean, on the south by the St. Mary's River and Florida, and on the west by Chattahoochee River and Alabama.

2. The greatest length of the State, north and south, is 322 miles, and the greatest width (on the 32d parallel) 224 miles, but from this line northward it gradually narrows. The area is computed at 58,000 square miles.

3. Georgia has a coast-line of only 128 miles, but including its bays and all irregularities its length is 480. This gives one mile of shore to every 121 square miles of land surface. The shore-line of the islands gives a farther length of 204 miles.

4. With a territory embracing the southern extremity of the great Atlantic chain of mountains, extending across them to the northwest into the valley of the Mississippi, running southwest into the cretaceous slope of the Gulf of Mexico, and occupying along their eastern base a wide belt, Georgia contains most of the important geological formations. Commencing at the Atlantic Ocean, and spreading out for 100 or 150 miles to the west, an extensive plain of tertiary formation rises from the level of the sea, and gradually swells up to the height of about 500 feet, at a line passing near the head of navigation of the rivers Savannah, Ogeechee, Oconee, and Ocmulgee, where it meets a primary formation. Between the Ocmulgee and Flint rivers it leaves the primary formation to the right, and rests on the cretaceous from a point nearly midway between Macon and Knoxville, by a line running southwest to another point between Pataula Creek and Fort Gaines, on Chattahoochee River. Bounded by the last-mentioned line to the southeast, and by the southern edge of the primary, the cretaceous formation extends from Alabama into Georgia, forming an acute triangle. The primary or non-fossiliferous, bounded on the east by the tertiary and cretaceous formations, crosses the State northeast and southwest, with a width of 160 miles at the northern limit and of 100 at the southern. The Blue Ridge range of mountains passes near its western edge, and forms the most elevated land of the State, varying in height from 1,200 to 4,000 feet. From this crest there is a gradual descent to the east, by a series of parallel and undulating ridges, until the tertiary plain is reached. On the west the descent is much more precipitous. The northwestern part of the State, bounded to the east and south by the western limit of the primary, consists of a transition or old fossiliferous formation, except the extreme northwest corner, where the carboniferous occurs.

5. Along the southern line of the State, between the head branches of the Suwanee and St. Mary's, there is an extensive swamp, or series of swamps, covered with a thick growth of bay trees, vines, and underwood, and in the wet season presenting the appearance of a wide lake containing islands of rich highland. This swamp extends over the borders into the State of Florida, and bears the Indian name of "Okefinoke." Several streams are lost in its morasses, and others, head-waters of rivers flowing to the Atlantic and Gulf of Mexico, take their rise within its limits.

GEORGIA, ALABAMA AND FLORIDA.

3.623.775, of Nature

SCALE OF STATUTE MILES 69.16 to 1°
0 10 20 40 60 80

50 Geographical or 57.63 Statute Miles, to one inch.



EXPLANATION

State Capitals... ✲ MONTGOMERY
County Towns... ⊙ Kingston.
Important Places ○ Salem
Rail Roads...
Battle Fields. ⚔ 1780

Entered according to Act of Congress, in the Year 1858, by J. H. Colton & Co. in the Clerks Office of the District Court of the United States for the Southern District of New York.

6. Upward of fifty streams in the State of Georgia are enumerated as deserving and having the designation of rivers. Whether for navigation or economic purposes, her water resources are immense. The navigable rivers are the Savannah, the Alatamaha, the Oconee, the Ocmulgee, the St. Mary's, the Ogeechee, the Flint, the Chattahoochee, the Coosa, and many others. The great river of the State is the Savannah, which rises by two principal branches in North Carolina, near the sources of the Tennessee and Hiwassee on the one side, and of the Chattahoochee on the other, and after a course of about 300 miles, falls over the last



CASCADE OF THE TACOA, A TRIBUTARY OF THE HIWASSEE RIVER.

chain of rock-hills into the great plain at Augusta, to which place, 250 miles from its mouth, it is navigable for steamers, and for large ships to Savannah. Its principal tributaries are Brier's Creek and Broad River.

7. The Chattahoochee is navigable to the falls at Columbus, 300 miles from its mouth, for a great part of the year, and its whole length is nearly 500 miles. Flint River rises in the hilly country south of the Chattahoochee, and has a total length of 300 miles, of which 75 miles to the falls is open to navigation. The Oostanaula and Etowah, rising in the mountains of the north, unite their streams at Rome, whence they pass directly into Alabama under the name of Coosa.

8. The Alatamaha is formed by the junction of the Oconee and Ocmulgee, which rise in the hills south of the Chattahoochee, and flow for about 250 miles nearly parallel to each other, when the latter bends round to the east and unites its waters with those of the former. There are 12 or 13 feet water on the bar of the river at ebb-tide, and steamboats ascend the Ocmulgee to Macon, and the Oconee to Milledgeville. The Ogeechee has a course of 200 miles, of which 40 are navigated by small vessels. The Santilla, or St. Illa, has a winding course, chiefly through a low swampy region, but is partially navigable for river craft. The St. Mary's rises in a low ridge, near Okefinoke Swamp, and reaches the sea at Cumberland Sound; it has 13 feet of water on the bar at low tide, and sometimes as much as 23 in times of flood.

9. The Allapaha and Withlacoochee, principal constituents of the Suwanee River of Florida, and the Ocklockonee River, are considerable streams in the south part of the State, which empty into the Gulf of Mexico.

10. The coasts of Georgia are lined with a succession of low islands, intersected by numerous navigable channels, which afford good inland sailing. They are separated from each other by wide bays or sounds, which bear their names and receive the waters of this section. The principal islands are Cabbage, Ossaba, St. Catharine's, Sapello, St. Simon's, Jykill, Cumberland, etc. These are covered with rich plantations, and produce the long staple cotton, called, from the place of its growth, Sea Island cotton; and until lately this was the only place, eligible in climate and soil, for the growth of this important production.

11. The mineral region of Georgia is found in the primary and metamorphic formations of the spurs of the Alleghany Mountains. It is in these outliers of the main ridge that the metamorphic slates and quartz rock are found, which are productive in gold ores; and frequently in near proximity to these are deposits of hematite iron, of extraordinary extent. In the gneiss also are found veins of magnetic iron ore. Specular ores, too, like those of the Iron Mountain in Missouri, are found in the vicinity of the hematite beds, and localities of the same ore are of frequent occurrence down the course of the Chattahoochee. Limestone, sulphate of barytes, talcose and mica slate, hornblende slate, greenstone, and quartz veins containing gold are abundant throughout the mineral region. The neighborhood of the Etowah is full of mineral, and the iron ores here found equal those of the Housatonic Valley. Northwestern Georgia, indeed, is destined to become a scene of busy industry; the vast water-power, the abundance of timber, and the beauty of the climate which characterize it, will all tend to its development and success.

12. While southern and middle Georgia are parched with heat, the more northerly climate is moderate and even cold. The sky is clear and the atmosphere bracing. The soil also varies greatly. The islets that border the sea-coast have a light sandy soil. In the south are the tide swamp lands, productive of rice. On the Savannah these lands are among the finest of the State, and next to these are the lands on the Alatamaha. The inland swamps also produce rice abundantly. Black seed cotton is produced on the oak lands adjoining these. About 60 or 70 miles from the coast begin the pine lands, which are chiefly valuable for their timber and ship-stores. The middle region of the State contains land of a red loamy soil, producing tobacco, cotton, and all the grains. The lands in the southwest, between the Chattahoochee and Flint, are in general fertile, but not as durable as some other soils. Being a light sandy soil, they produce cotton, and sometimes sugar-cane, for a few years, and then become exhausted. In the northern part, that known as Cherokee Georgia, the valleys are exceedingly rich. This is peculiarly a grain country, and in the mountains the lands are well adapted to grazing. The forests produce the finest timbers, many valuable for cabinet work; and many products useful in the arts and medicine are found throughout the State.

13. In 1850 Georgia contained 906,185 inhabitants, being 15.62 to the square mile, or 3.91 per cent. of the total population of the Union. This population, consisting of 91,666 families inhabiting 91,206 dwellings, was distributed into the counties as follows:

Counties.	Population.	County Seats.
Appling	2,949	Holmesville.
Baker	8,120	Newton.
Baldwin	8,148	MILLEDGEVILLE.
Berrien	(*new.*)	—— ?
Bibb	12,699	Macon.
Bryan	3,424	Eden.
Bullock	4,300	Statesboro'.
Burke	16,100	Waynesboro'.
Butts	6,488	Jackson.
Calhoun	(*new.*)	Pachitta.
Camden	6,319	Jeffersonton.
Campbell	7,232	Campbellton.
Carroll	9,357	Carrollton.
Cass	13,300	Cassville.
Catoosa	(*new.*)	Ringgold.
Charlton	(*new.*)	Traders' Hill.
Chatham	23,901	Savannah.
Chattahooche	(*new.*)	Cusseta.
Chattooga	6,815	Summerville.
Cherokee	12,800	Canton.
Clarke	11,119	Athens.
Clay	(*new.*)	Fort Gaines.
Clinch	637	Magnolia.
Cobb	13,843	Marietta.
Coffee	(*new.*)	Spaulding.
Colquit	(*new.*)	—— ?
Columbia	11,961	Appling.
Coweta	13,635	Newnan.
Crawford	8,984	Knoxville.
Dade	2,680	Trenton.
Decatur	8,262	Bainbridge.
De Kalb	14,328	Decatur.
Doherty	(*new.*)	Albany.
Dooly	8,361	Vienna.
Early	7,246	Blakely.
Effingham	3,864	Springfield.
Elbert	12,959	Elberton.
Emanuel	4,577	Paris.
Fannin	(*new.*)	Morganton.
Fayette	8,709	Fayetteville.
Floyd	8,205	Rome.
Forsyth	8,850	Cumming.
Franklin	11,513	Carnesville.
Fulton	(*new.*)	Atlanta.
Gilmer	8,440	Elijay.
Glynn	4,933	Brunswick.
Gordon	5,984	Calhoun.
Greene	13,068	Greenesboro'.
Gwinnett	11,257	Lawrenceville.
Habersham	8,895	Clarkesville.
Hall	8,713	Gainesville.
Hancock	11,578	Sparta.
Haralson	(*new.*)	—— ?
Harris	14,721	Hamilton.
Hart	(*new.*)	Henley's Store.
Heard	6,923	Franklin.
Henry	14,726	McDonough.
Houston	16,450	Perry.
Irwin	3,334	Irwinsville.
Jackson	9,768	Jeffersonville.
Jasper	11,486	Monticello.
Jefferson	9,131	Louisville.
Jones	10,224	Clinton.
Kinchafoona	(*new.*)	—— ?
Laurens	6,442	Dublin.
Lee	6,660	Starksville.
Liberty	7,926	Hinesville.
Lincoln	5,998	Lincolnton.
Lowndes	7,714	Troupville.
Lumpkin	8,955	Dahlonega.
Macon	7,052	Lanier.
Madison	5,703	Danielsville.
McIntosh	6,027	Darien.
Marion	10,280	Tazewell.
Meriwether	16,476	Greenville.
Miller	(*new.*)	—— ?
Monroe	16,985	Forsyth.
Montgomery	2,154	Mt. Vernon.
Morgan	10,744	Madison.
Murray	14,433	Spring Place.
Muscogee	18,578	Columbus.
Newton	13,296	Covington.
Oglethorpe	12,259	Lexington.
Paulding	7,089	Dallas.
Pickens	(*new.*)	Jasper.
Pike	14,806	Zebulon.
Polk	(*new.*)	Cedar Town.
Pulaski	6,627	Hawkinsville.
Putnam	10,794	Eatonton.
Rabun	2,448	Clayton.
Randolph	12,868	Cuthbert.
Richmond	16,246	Augusta.
Scriven	6,847	Sylvania.
Spaulding	(*new.*)	Griffin.
Stewart	16,027	Lumpkin.
Sumter	10,322	Americus.
Talbot	16,534	Talbotton.
Taliaferro	5,146	Crawfordsville.
Tatnall	3,227	Reidsville.
Taylor	(*new.*)	Butler.
Telfair	3,026	Jacksonville.
Terrell	(*new.*)	—— ?
Thomas	10,103	Thomasville.
Towns	(*new.*)	—— ?
Troup	16,879	La Grange.
Twiggs	8,179	Marion.
Union	7,234	Blairsville.
Upson	9,424	Thomaston.
Walker	13,109	La Fayette.
Walton	10,821	Monroe.
Ware	3,888	Waresboro'.
Warren	12,425	Warrenton.
Washington	11,766	Sandersville.
Wayne	1,499	Waynesville.
Webster	(*new.*)	Preston.
Whitfield	(*new.*)	Dalton.
Wilkes	12,107	Washington.
Wilkinson and Worth	8,296	Irwinton.
	(*new.*)	Isabella.

—of the total population 521,572 (57.55 per cent.) were whites—266,233 males and 255,339 females, 2,931 free colored—1,375 males and 1,556 females; and 381,682 (42.13 per cent.) slaves—188,857 males and 192,825 females; and of the free population (524,503) 518,097, or 98.77 per cent., were American born, of whom 402,666 were natives of this State; 5,907 (1.13 per cent.) were foreigners, and 517 of origin unascertained. The number of Georgians in other States was 122,954. In 1790 Georgia contained 82,548 inhabitants; in 1800, 162,101; in 1810, 252,433; in 1820, 340,987; in 1830, 516,823; in 1840, 691,392, and in 1850 (as above), 906,185. A State census in 1855 gave the population at 935,090.*

14. There were employed in industrial pursuits in 1850, 123,243 free male persons over the age of 15 years. Of these 20,715 were engaged in commerce, trade, manufactures, mechanic arts, and mining; 83,362 in agriculture; 11,505 in labor not agricultural; 18 in the army; 282 in sea and river navigation; 2,815 in law, medicine and divinity; 3,942 in other pursuits requiring education; 416 in government civil service; 15 in domestic service, and 173 in unclassified occupations.

15. In 1850 Georgia contained 51,759 farms and plantations, covering 22,821,379 (improved 6,378,479, and unimproved 16,442,900) acres of land, and valued at $95,753,445. The value of implements and machinery in use on these was $5,894,150.

16. The amount of livestock in the State in 1840 and 1850 was as follows:

	equines,	neat cattle,	sheep,	swine,
1840	157,540	884,414	267,107	1,457,755
1850	208,716†	1,097,528‡	560,435	2,168,617

—the stock of 1850 having a total value of $25,728,416, and the value of animals slaughtered in the year preceding was $6,339,762. The products of animals consisted of—butter 4,640,559 pounds, cheese 46,976 pounds, and wool 990,019 pounds. In 1840 the wool crop amounted to only 371,303 pounds.

17. The cereal crops (bushels) of the two years were as follows:

	wheat,	rye,	oats,	corn,	barley,	buckwheat,
1840	1,801,830	60,693	1,610,030	20,905,122	12,979	141
1850	1,088,534	53,750	3,820,044	30,080,099	11,501	250

—and other food crops—potatoes (Irish 227,379, and sweet 6,986,428) 7,213,807 bushels, peas and beans 1,142,011 bushels, etc.

18. The products of the Southern staples (pounds) were as follows:

	cotton,	clean rice,	tobacco,	sugar,
1840	163,392,396	12,384,732	162,894	329,744
1850	199,636,400	rough 38,950,691	423,924	846,000

—and in 1850, molasses, 216,245 gallons.

19. And among the miscellaneous products of 1850 are named the following: hay, 23,449 tons; clover and grass-seed, 560 bushels; beeswax and honey, 732,514 pounds; flax, 5,387 pounds; silk cocoons, 813 pounds; wine, 796 gallons, etc.

20. The total value of agricultural products in 1840 was $29,612,436, and in 1850, $46,686,151.

* The State census of 1855 gives the population at 935,090, of which 542,567 were whites, 3,286 free colored persons, and 389,237 slaves. Number of families 99,695

† Namely, horses 151,331, and asses and mules 57,379.

‡ Namely, milch cows 334,223, working oxen 73,286, and other cattle 690,019.

21. Among the manufacturing establishments of Georgia in 1850 there were 35 cotton-mills, consuming 20,230 bales of cotton annually, and producing goods to the value of $2,135,044. The total number of manufacturing, mining, and mechanic establishments was 1,527, with an aggregate invested capital of $5,460,483, and employing 8,378 hands. The value of the raw material consumed in the year preceding was $3,404,917; the cost of labor was $1,712,304, and the value of the manufactured products $7,086,525. In 1810 the value of the products of the manufactures was $2,768,904, and in 1840 only $3,856,677.



RICE-MILL ON SAVANNAH RIVER.

22. The value of goods manufactured in families and not included in the above was—in 1840, $1,838,968, and in 1850, $1,467,630.

23. The value of exports to foreign countries in the years ending 30th June, 1850 and 1855 was $7,551,943 and $7,543,519, and of imports $636,964 and $273,716. The shipping employed in this trade in 1850 amounted to 129,580 tons, viz., cleared 72,563 tons, and entered 54,017 tons; and in 1855 to 154,391 tons, viz., cleared 104,368 tons, and entered 50,023 tons. The shipping owned in the State in 1850 amounted to 21,690 (registered 10,437, and steam 6,478) tons, and in 1855 to 29,505 (registered 17,990, and steam 6,113) tons; and the amount of shipping built in the two years amounted to 684 and 194 tons respectively.

24. The comparatively small foreign trade of Georgia is counterbalanced by the activity of its coasting trade. By the coast route its commercial products are carried to Northern ports, and by the same route nearly the whole of its foreign imports are received. In this trade several lines of steamers are engaged, and there are others which, trading with Florida, tranship their freights at Savannah. The interior trade is carried on by an extensive system of railroads, and by the rivers which are navigated by steamers.

25. The principal railroads are the Georgia, the Central, the Macon and Western, the Western and Atlantic, and the East Tennessee and Georgia, which form lines from Savannah and Charleston to Tennessee; the Atlanta and Lagrange, and the Southwestern and Muscogee, which connect with the above at Macon and Atlanta, and form junctions with the Alabama lines at West Point and Columbus; the Savannah, Albany and Gulf, and the Brunswick and Florida, which, in conjunction with the Atlantic and Gulf Railroad, will connect Savannah and Brunswick with the Gulf ports, etc., etc. These, with their branches and connections, penetrate every part of the State, and form the general courses of its commerce; and other lines are now in rapid progress between Savannah and Charleston and Savannah and St. Mary's, which will extend the great north and south coast line to the Florida border, and there connect with the great transit line of the isthmus. The total length of railroad completed and in operation in this State in 1855 was nearly 1,200 miles, or one mile to every 48.33 square miles of surface.

26. Georgia has but two canals: the Ogeechee Canal, 16 miles in length, which connects the navigation of the Ogeechee with Savannah, and the Brunswick Canal, 12 miles long, which connects the Alatamaha with Brunswick Harbor. Both of these, however, are of the greatest value to the commerce of their localities.

27. The government of Georgia is based on the constitution of 1798 and amendments thereto adopted in 1838. The right to vote is granted to every resident citizen 21 years of age, who has paid all taxes demanded for the year and resided in the county for the six months preceding. Votes are given *viva voce*. The general elections are held on the first Monday in October biennially.

28. The general assembly consists of a senate of 112 members, and a house of representatives of 150 members, elected for two years. All revenue bills must originate in the house, and the governor's veto to any bill passed by the two houses may be nullified by a subsequent two-thirds vote. The sessions are biennial, and commence on the first Monday in November.

29. The governor is elected for two years by popular vote. He must be 30 years of age, have been a citizen of the United States for 12 years and of the State 6 years, and be possessed of a freehold of 500 acres or other property worth $4,000. In case of vacancy the office is filled by the president of the senate, and he failing, by the speaker of the house of representatives. The chief administrative officers of the State are elected by joint ballot of the general assembly for two years.

30. The judiciary is exercised by a supreme court, circuit court, etc. The supreme court consists of three judges, who are elected for six years (one every two years) by the general assembly. This is the highest court of appeal. Judges of the circuit courts are elected for four years by the people, in the sixteen circuits into which the State is divided, one in each. These courts have exclusive criminal and concurrent civil jurisdiction. Ordinaries or judges of probate are elected in each county, and justices of the peace in districts, for four years. Savannah and Augusta have each a separate court of oyer and terminer.

31. The receipts into the treasury for the two years ending 30th September, 1855, amounted to $1,112,871, and the disbursements to $946,874. The chief sources of income are general tax, sales of land, etc. The public debt consists chiefly of bonds issued for the construction of the Western and Atlantic Railroad, and on the 20th October, 1855, amounted to $2,644,222, paying an annual interest of $158,653. The productive property held by the State (viz., the Western and Atlantic Railroad) is valued at $5,000,000. The value of taxable property in 1850 amounted to $335,116,225, and in 1855 to $528,927,963.

32. The public institutions supported in part or wholly by the State are the Lunatic Asylum at Midway, near Milledgeville, the Institution for the Deaf and Dumb and Blind in Murray County, and the State Prison at Milledgeville.

33. The number of children returned by the census of 1850 as having attended school in that year was 77,016, or one to every 6.8 of the free population. The actual condition of the schools on the 1st June of that year was as follows:

Classification.	Number.	Teachers.	Scholars.	Income
Primary and public schools	1,251	1,265	32,705	$182,231
Academies and private schools	219	318	9,059	43,299
Universities and colleges	13	84	1,585	105,430

—making a total of 1,483 schools, 1,667 teachers, and 43,299 scholars, and an annual income of $330,960. The total of free persons over 20 years of age unable to read and write was 41,667, of which number 41,200 were whites and 467 free colored persons, and 41,261 were Americans and 406 foreigners.

34. The chief collegiate and professional schools in the State, and statements of their condition in 1855, are exhibited in the following table:

Institutions.	Location.	Founded.	Professors.	Students.	Libraries.
Franklin College	Athens	1785	10	160	20,000
Oglethorpe University	Milledgeville	1838	5	93	5,000
Emory College	Oxford	1838	5	115	2,000
Mercer University	Penfield	1838	7	87	6,000
Wesleyan Female College	Macon	1839	11	177	1,500
Theological (Bapt.) Seminary	Mercer University	1844	2	10	2,500
Med. College of Georgia	Augusta	1832	7	115	—

35. The most numerous of the religious denominations of Georgia are the Baptist and Methodists, which include seven eighths of the total population. The Presbyterian is the next most numerous, and claims a twelfth, and after these the Episcopal and Roman Catholic, which in this State are in comparatively small numbers; while the other denominations have scarcely a representative. The whole number of churches in 1850 was 1,862, with accommodation for 627,197 persons, and the value of church property amounted to $1,269,357.

36. Milledgeville, the capital of the State, is built on an elevated site at the head of navigation of the Oconee River, in latitude 33° 7′ 20″, and longitude 83° 19′ 45″—642 miles southwest from Washington. The city is laid out on a regular plan, the streets being at right angles, and the buildings are generally substantial and elegant. Washington Avenue, the main thoroughfare, is 120 feet wide, the other streets being 100 feet wide; and there are three public squares, each of which has its sides 450 feet long. The principal building is the State House, a handsome Gothic structure, occupying a lofty site near the center of the city. The governor's residence, the State Arsenal and Magazine and Penitentiary are also goodly structures, and there is a market-house and several neat churches, etc. Milledgeville stands in the center of a rich cotton district, and is a place of considerable business, which is accommodated by the Milledgeville and Eatonton Railroad, forming a junction with the Georgia Central Railroad at Gordon, 18 miles to the south. Population 2,216.

37. Savannah, on the river of the same name, on its right bank, and about 18 miles from the sea, is the principal city and the chief commercial port of the State. Latitude 32° 4′ 56″, and longitude 81° 8′ 18″. This city is generally regarded as one of the finest and healthiest on the south coast. It is about a mile long and about three fourths of a mile wide. Along the river are convenient wharves and warehouses. The principal public buildings are the Custom House, a fine edifice 110 feet long by 52 feet deep; a court-house and jail; the City Hall, Exchange, Arsenal, Barracks, Theater, Market House, etc.; several asylums and hospitals, and 15 churches, some of which are handsome structures. Of the private houses, most are constructed of wood, owing to which the city has been several times seriously damaged by fire.

38. As a commercial city, Savannah has ever occupied a prominent position in the South, and is especially eminent as a mart for cotton, rice, and lumber. The quantity of cotton exported in 1851-2 was 353,068 bales (228,614 coastwise and 124,454 direct to foreign countries); of rice 39,929 tierces, and of lumber 25,508,500 feet. The entire foreign commerce of the State centers at this port. The internal trade of Savannah is facilitated by the Central Railroad, which, with its branches and connections, drains a wide line of country, westward to the Mississippi and northwest to Nashville and Knoxville, in Tennessee. Other railroads are being built—north to Charleston and southwest toward Pensacola and Mobile. The city also maintains regular lines of steamships to and from the Florida Atlantic ports, and also between Savannah and the cities north, viz., Charleston, Philadelphia, New York, etc.

39. In 1810 Savannah contained 5,195 inhabitants; in 1820, 7,523; in 1830, 9,776; in 1840, 11,214; and in 1850, 16,060. A local census taken in 1852 gave the population at 18,301. Savannah was first settled in 1733 by some thirty families under General Oglethorpe.

40. The principal ports below Savannah are Darien, Brunswick, and St. Mary's. Darien is situated on the north bank of the Altamaha River, 12 miles from the bar at the entrance of the sound. This bar has 14 feet of water. The town is a place of considerable coastwise commerce and the natural port of the valley of the Alatamaha, the great branches of which are navigable—one of them, the Oconee, to Milledgeville, and the other, the Ocmulgee, to Macon. Population 550. The Florida steamboats from Savannah and Charleston call at this port. Brunswick is an important port on the north side of Turtle Creek, and has a spacious, safe, and, indeed, one of the best harbors of the Southern coast. Ships drawing not more than 13 feet of water can pass the bar at low tide. The town is 13½ miles above the bar, and 8 miles above the light-house on St. Simon's Island. The Brunswick Canal extends 12 miles to the Alatamaha, and connects the navigation of the two rivers, and a railroad, the

Brunswick and Florida, is now being built toward Pensacola and Mobile. This work when completed will raise Brunswick to a high rank among Southern commercial towns. Population about 2,000. St. Mary's, on the north bank of St. Mary's River, which here divides Georgia and Florida, is a thriving port a little more than 100 miles south-southwest from Savannah. It has a safe harbor, and vessels drawing 21 feet of water come up to its wharves. The town contains about 1,000 inhabitants. While Florida remained a Spanish possession, this place held a more important position in commerce than at the present day. The Florida steamers call here on both their up and down passages.

41. Augusta, on the left bank of the Savannah, is one of the most flourishing towns of the State, being the commercial center of a fertile cotton region. It is connected with Hamburg by bridges, and here also is the point of junction between the South Carolina and Georgia railroads. Population in 1840, 6,430, and in 1850, 11,753.

42. Columbus, at the head of navigation of the Chattahoochee, and immediately below the falls, is also a very important town. In the three miles above, the river falls 112 feet, and affords excellent water-power. The site of the town is 60 feet above the river, and covers 1,200 acres; it is regularly laid out in wide and handsome streets, crossing at right angles, and contains several large cotton factories and flouring mills. Its trade is chiefly in cotton, for which it is a first-rate depôt. This staple is exported by the Chattahoochee to Appalachicola, and also to Savannah by the Muscogee Railroad, extending from this city to Macon. On the opposite, or Alabama, side of the river is the town of Girard, with which Columbus is connected by a railroad bridge, for the accommodation of the Opelika Branch of the Montgomery and West Point Railroad and of the Mobile and Girard Railroad, which terminate here. Columbus is a new town: it was founded in 1828; in 1840 it had 3,114 and in 1850, 5,942 inhabitants.

43. Macon is situated on the right bank of the Ocmulgee, at the head of steamboat navigation. It is the point of union of the Central and the Macon and Western railroads, and of the Southwestern and Muscogee railroads. It is a rapidly increasing town, and has a large trade with the interior and sea-board. In 1850 it contained 5,720 inhabitants. A very large quantity of cotton is sent down the river, and also by railroad to the sea-board. The town contains several goodly public buildings, extensive stores, lumber-yards, commission houses, etc., and is the seat of the Wesleyan Female College. It has been proposed to make this the State capital, instead of Milledgeville.

44. Atlanta, at the junction of the Georgia, the Western and Atlantic, the Macon and Western, and the Atlanta and Lagrange railroads, is an important entrepôt of the internal commerce of the State, and, by these several lines and their connections, has direct intercourse with—Augusta, 171 miles; Charleston, 308 miles; Savannah, 292 miles; Montgomery, 175 miles; Chattanooga, 104 miles; Nashville, 291 miles; Knoxville, 263 miles; Memphis, 436 miles, etc. Population in 1850, 2,572.

45. Athens, on the right bank of the Oconee, 57 miles north Milledgeville, is chiefly noticeable as the seat of the University of Georgia. It is connected by railroad with the sea-board at Savannah, and has a considerable inland trade. Population 1,661.

46. Dahlonega, 112 miles north-northwest Milledgeville, is a small town of 1,277 inhabitants. It is the central depôt of the gold region of Georgia and the seat of a branch of the United States Mint, at which only gold is coined.

47. Georgia was the last settled of the old States; the charter under which the colony was founded was granted in 1732 by George II.—in honor of whom it received its name—to the trustees for the establishing the Colony of Georgia. The double purpose of making the settlement was to relieve the distresses of the poor at home, and to secure the frontiers of the Carolinas from the Indians and Spaniards. In 1733 General Oglethorpe, one of the trustees, conducted the first colonists to the Savannah, and several bodies of Germans and Highlanders were soon after brought over. The lands were held on a military tenure. The country was repeatedly traversed by the Spaniards from Florida, who considered the occupation of the English as an encroachment upon their domain. In 1752 the proprietary government was abolished, and Georgia became a royal colony. The original limits of the State included the territory now divided into the two thriving States of Alabama and Mississippi.

48. At the commencement of the Revolutionary War, Georgia was only in the infancy of her strength, and had just begun to enjoy peace and the advantages of a better system of government. The inhabitants knew the operation of the royal government only by its favorable contrast with that of the trustees. Notwithstanding, the people did not hesitate to take part with their Northern brethren. During the war that ensued, Georgia was overrun by the British troops, and the principal inhabitants were compelled to abandon their possessions and fly into the neighboring States. In proportion to their numbers, the exertions and losses of her citizens were as great as in any of the States.

49. After the war Georgia suffered on her frontiers from the incursions of the Creek Indians, whose hostility had been too often provoked by the whites. In 1790 a treaty was concluded with this nation, by which the boundaries of Georgia were established. In 1802 the Creeks ceded to the United States a large tract of country, which has since been ceded by the United States to Georgia, and forms the southwest corner of the State. Georgia possessed—as included within her limits—a claim to an immense body of Western land, of which in 1795 the legislature sold a large portion, said to have contained 22,000,000 acres, to a company, by which it was again sold to individuals. In the succeeding year the legislature declared the sale unconstitutional, and on the ground that it was obtained through bribery, they declared it to be void, and ordered all the records to be burned. In 1802 Georgia ceded to the United States all the lands west of the Chattahochee River, and of a certain line including the contested lands; and in 1814 Congress passed an act by which a compromise was made with the purchasers, who received a certain amount of public stock. The history of Georgia since this period records no territorial or government changes; but it is full of instruction, recording the gradual progress of a people in the arts, agriculture, manufactures, and commerce, from a small beginning to an elevation attained by few other members of the Confederation, in the escutcheon of which this State is one of the brightest stars.

STATE OF FLORIDA.



1. Florida is situated between latitudes 24° 30′ and 31° north, and longitudes 80° and 87° 45′ west; and is bounded on the north by Georgia and Alabama, on the east by the Atlantic Ocean, on the southwest and south by the Gulf of Mexico, and on the west by the Rio Perdido.

2. This State consists of a long narrow strip of territory extending from 30 to 50 miles south from Georgia and Alabama, and from the Atlantic to the Perdido about 340 miles, and of a long peninsula extending from the mainland southward through five degrees of latitude, between the Atlantic and the Gulf. The area is computed at 59,268 square miles, or 2.02 per cent. of the whole Union.

3. Florida has a coast-line of much greater length than any other State—on the Atlantic 472 miles and on the Gulf 674 miles; but if the bays and all irregularities be included 1,034 and 883 miles, and the islands off the coast have an additional shore-line of 1,440 and 679 miles. The total line is therefore 4,036 miles, or one mile to every 14.6 square miles of surface.

4. Notwithstanding this enormous stretch of coast the State is almost inaccessible on account of soundings, and has few good harbors. West of Cape San Blas the shores are bold, but east of that point it begins to shoal. From Appalachee Bay to Tampa Bay the whole coast sends off shallow banks; and from Wacasasa Bay to the Amaxura there are only six or seven feet of water at as many miles distance from the shore. To the south of Carlos Bay the shores are bolder. On the eastern side of the peninsula there is no harbor south of San Augustine, and scarcely an inlet breaks the coast from that point to Cape Florida.

5. Florida is the most southern of the United States. The southern portion of the peninsula, from about 28° north latitude, is an extensive marsh, which, during the rainy season, between June and October, effectually prevents an overland transit from one shore to the other. North of this tract to Georgia the surface is generally a dead level, but in some parts it is undulating, and even presents eminences worthy the designation of hills. West of the neck of the peninsula it is more uneven and rugged; but still the elevations are inconsiderable, and, where occurring, of very limited extent.

6. The great southern marsh contains numerous tracts of pine-barrens, prairies, and hummocks, and the more northerly part of the peninsula consists chiefly of pine-forests, interspersed with hummocks, prairies, and marshes. In the first section timber is the exception, and in the latter the distinguishing feature. The soils are generally sandy, except in the hummocks, in which it is clay mixed with sand. These hummocks are scattered throughout the country, and vary in extent from a few acres to thousands, but form in the aggregate only a small por-



SWAMP SCENE IN SOUTHERN FLORIDA.

tion of the whole area. They are covered with a fine growth of red, live, and water oak, dogwood, mahogany, and pine, and form, when cleared, excellent arable land.

7. The prairies or savannahs, as here called, are sometimes pretty extensive, stretching several miles in length and breadth, and forming natural pastures. The barrens are overgrown with pine-forests, with little underwood; and though the soil is generally indifferent, it is sometimes productive, and may be easily improved.

8. The swamps or morasses, the most conspicuous feature in the country, are formed either by the inundation of rivers which, overflowing their high-wooded banks, cover the lowlands in their rear with water, or they are produced by the drainage of the surrounding country. The latter or pine-barren swamps are overgrown with pine, cypress, and cypress knees; and the former or river swamps are covered with a heavy growth of timber trees.

9. The rivers of Florida are numerous, and afford great facilities to internal navigation. The St. John's rises in the great southern marsh, and reaches the ocean after a northerly course of 300 miles in latitude 30° 20′ north. For nearly 100 miles from its mouth it forms a wide sluggish sheet of water, more resembling a lagoon than a river, and it is navigable to Lake George, a little higher up, for vessels drawing eight feet of water. Indian River is a long lagoon, having much the same character, and communicates with the ocean by an outlet in latitude 27° 30′ north.

10. Charlotte and Amaxura are the principal rivers on the western shore, the whole of which, south of the Suwanee, contains only small streams. The Suwanee is formed by the Withlacoochee and Little St. John's from Georgia, and reaches the Gulf at Wacasasa Bay. The Ockloconee also rises in Georgia. The Appalachicola River, formed on the frontier of Florida by the junction of the Chattahoochee and Flint rivers, falls into the bay of the same name, after a navigable course of 80 miles. The Choctawatchee rises in Alabama and reaches the Gulf through Choctawatchee Bay; and the Escambia flows into Pensacola Bay.

11. The St. Mary's, forming the northeastern boundary, empties into the Atlantic, and affords, through a great portion of its length, a fine navigable channel.

12. South from the mainland a chain of small, rocky islands, named cayos or keys, extends to the westward, ending in a cluster of rocks and sand-banks called the Tortugas. South of the bank upon which these keys rise, and separated from them by a navigable channel, is a long narrow coral reef, known as the Florida Reef. The most important of the keys is Key West (a nautical corruption of "Cayo Hueso" or bone key), called also Thompson's Island. For a long period the haunt of smugglers and pirates, it is now a naval station of the first importance, and the seat of bands of wreckers, whose business it is to assist vessels in distress; and here a special court is established to adjust salvages. This key is about six miles in length by two in breadth, with a large, well-sheltered, and commodious harbor; and the extensive ponds thereon yield annually a large amount of salt. The Tortugas derive their name from the number of turtles found in the surrounding waters.

13. The whole of the peninsula is of diluvial formation. The substratum of the eastern part is clay, mixed with sand; but that of the western is a kind of rotten limestone, which in many places is undermined by subterranean streams, forming numerous cavities called "sinks." These sinks are inverted conical hollows, varying in size from a few yards to several acres, at the bottom of which running water often appears. The central district is the most productive, but even here a large portion is composed of poor pine-barrens; yet in the midst of these are found gentle eminences of fertile land, supporting a vigorous growth of oaks and hickories, while numerous rivulets of pure water flow through the country, or expand into beautiful lakes. Farther west the land is more generally poor. Thus it appears that a small portion only of the State can be said to be available for cultivation, yet the warmth and humidity of the climate compensate in a great measure for the stubborn nature of the soils, and give it a vegetation of great variety and luxuriance.

14. The climate of Florida has been spoken of, and justly, as one of the finest—and aside from the miasms from the swamps—as one of the most salubrious in the world. In the south the temperature scarcely changes the year round, and summer is only distinguished by the copiousness of its showers. No more delightful residence for invalids can be found than Key West, where the difference of the mean temperature of summer and winter is not more than 11° Fahr. The average mean temperature in the State is about 73°, and in no place does the difference between summer and winter exceed 25°. The average fall of rain in the year is 33 inches.



FLORIDA INDIANS.

15. The productions of Florida are chiefly those which require a tropical sun to mature them. It is not, however, merely in tropical products that Florida possesses advantages over every other State of the Union; it is now established beyond a doubt that the *Sea-island* or long staple cotton (the production of which was formerly confined to a few small islands off the coasts of South Carolina and Georgia) will grow luxuriantly even in the very center of the peninsula. A fine quality of this staple has also been produced on the Suwanee, and in the very center of Alachua, as well as on the eastern coast. This important fact is no doubt attributable to the almost insular position of the State.

16. The soils are also adapted to the successful cultivation of the coffee-plant, also cocoa, the sugar-cane, cottons generally, Cuba and other tobacco, rice, indigo, arrow-root, Sisal hemp, New Zealand flax, etc.; and the climate is suitable for the cochineal insect and the silk-worm. Corn, potatoes, turnips, and, in short, most of the vegetables known to the North or South find in one or other locality congenial soils.

17. The fruits produced are very numerous, and of the most delicate descriptions; oranges, lemons, limes, pine-apples, olives, grapes, etc., flourish luxuriantly. Much of the tropical fruit found in the markets of Northern cities is brought from this State. Beets, onions, egg-plants, carrots, lettuce, celery, and cauliflowers are produced with the most indifferent cultivation; and water-melons, cantelopes, pumpkins, cucumbers, and everything that grows upon vines, are in abundance and in great perfection.

18. The driest seasons are relieved by heavy dews, and the sun that would bake the earth in other States, and wither vegetation, is here so tempered by the pervading moisture as to force the development of vegetative life to the utmost, and envelop the earth in perennial verdure.

19. The grassy prairies of this country afford excellent pasturage, and have long been the feeding-grounds of the Southern grazier. Immense herds of cattle are constantly upon them, requiring little care from their owners, and no housing on account of the colds of winter; and in most parts of the State hogs thrive well and fatten without any other support than that which they derive from the abundant roots and masts of the forests; and there is certainly no part of the United States where game and fish are so abundant as in Florida. It was common, before the war, for a good hunter to kill seven or eight deer in a day, and multitudes of these animals were slaughtered merely for their skins. The country abounds also in various species of small game.

20. In 1850 Florida contained 87,445 inhabitants, being 1.48 to the square mile, or 0.38 per cent. of the total of the United States. This population consisting of 9,107 families inhabiting 9,022 dwellings, was distributed into the counties as follows:

Counties.	Population.	County Seats.
Alachua	2,524	Newnanville.
Benton	926	(*now* Hernando)
Calhoun	1,377	St. Joseph.
Brevard	(*new.*)	Susanna.
Columbia	4,808	Alligator.
Dade	159	Miami.
Duval	4,539	Jacksonville.
Escambia	4,351	Pensacola.
Franklin	1,561	Appalachicola.
Gadsden	8,784	Quincy.
Hamilton	2,511	Jasper.
Hernando	(*new*)	Bay Port.
Hillsboro'	2,377	Tampa.
Holmes	1,205	Cerro Gordo.
Jackson	6,639	Mariana.
Jefferson	7,718	Monticello.
Leon	11,442	Tallahassee.
Levy	465	Atsena Otie.
Liberty	(*new.*)	——?
Madison	5,490	Madison.
Marion	3,338	Ocala
Monroe	2,645	Key West.
Nassau	2,164	Fernandina.
Orange	466	Mellonville.
Putnam	687	Pilatka.
Santa Rosa	2,883	Milton.
St. John's	2,525	St. Augustine.
St. Lucia	139	(*now* Brevard.)
Sumter	(*new.*)	Lake Griffin.
Volusia	(*new.*)	Enterprise.
Wakulla	1,955	Newport.
Walton	1,817	Ucha Anna.
Washington	1,950	Holmes Valley.

—of the total population 47,203 (53.98 per cent.) were whites—25,705 males and 21,498 females, 932 free colored—418 males and 514 females, and 39,310 (44.96 per cent.) slaves—19,804 males and 19,506 females; and of the free population (48,135) 45,320, or 55.04 per cent. were Americans, of whom 20,563 were born in this State; 2,757 or 5.73 per cent. were foreigners, and 58 of origin not ascertained. In other States of the Union there were 4,734 natives of Florida. In 1830 Florida contained 34,730 inhabitants; in 1840, 54,477, and in 1850 (as above), 87,445. The population according to the State census of 1855 was 110,725.*

21. The number of free male persons over 15 years of age engaged in industrial pursuits in 1850 was 13,135. Of these 2,380 were engaged in commerce, trade, manufactures, mechanic arts, and mining; 5,977 in agriculture; 2,666 in labor not agricultural; 423 in the army; 708 in sea and river navigation; 357 in law, medicine, and divinity; 302 in other pursuits requiring education; 268 in government civil service; 12 in domestic service, and 42 in occupations not classified.

22. In 1850 Florida contained 4,304 farms and plantations, covering 1,595,289 (improved 349,049 and unimproved 1,246,240) acres of land, and these were valued at $6,328,109, and the implements and machinery in use thereon at $658,795.

23. The crops of 1840 and 1850 compare as follows:

	1840.	1850.		1840.	1850.		1840.	1850.
Wheat ..... bush.	412	1,027	Potatoes—Irish, bush.	264,617	7,828	Cane-sugar. lbs	275,317	2,750,000
Rye ..... "	305	1,152	" —sweet, "		757,226	Molasses ... gals.	—	352,893
Oats ..... "	13,829	66,586	Peas and beans, "	—	135,359	Cotton ..... lbs.	12,110,533	18,052,400
Indian corn "	898,974	1,996,809	Hay ..... tons	1,197	2,510	Rice ..... "	481,420	—
Barley ..... "	30	—	Beesw., honey. lbs.	—	18,971	Rough rice. "	—	1,075,090
Buckwheat. "	—	55	Beeswax ..... "	75	—	Tobacco ... "	75,274	998,614

—and the value of market-garden products was $8,721, and of orchard products $1,280.

24. The quantity of livestock upon the farms was as follows:

1840	equines,	12,043	neat cattle,	118,081	sheep,	7,198	swine,	92,680
1850	"	15,850*	"	261,085†	"	23,311	"	209,453

—and the stock of 1850 was valued at $2,880,058, and the value of animals slaughtered in the year preceding was $514,685. The products of animals were—butter 371,498 pounds, cheese 18,015 pounds, and wool 23,247 (in 1840, 7,285) pounds.

25. The total value of agricultural products in this State was in 1840 $1,817,718, and in 1850 $3,865,059.

26. In 1850 Florida contained 103 manufacturing and mechanic establishments, in which was invested capital to the amount of $54,706, and which gave employment to 991 hands. The value of raw material consumed in the year was $220,611, the cost of labor $199,452, and the total value of products $668,335. In 1840 the total value of goods manufactured was $587,167.

27. The value of goods manufactured in families was—in 1840 $20,205, and in 1850 $75,582.

28. The whole coast is productive of the finest fish, and oysters of exquisite flavor are found on the shores. Sheep-head, grouper, red-fish, mullet, green turtle, etc., abound on the eastern and western coasts; and the numerous lakes, rivers, and creeks of the interior teem with fresh-water fish, and the most delicious species of soft-shelled turtle, etc. On many parts of the coast sponges are found, and in this product the trade is constantly increasing.

29. The total exports from Florida to foreign countries for the years ending 30 June, 1850 and 1855, amounted to $2,623,624 and $1,403,594, and the imports to $95,907 and $45,998. The shipping engaged in this trade in 1850 amounted to 40,136 tons, viz., cleared 22,156, and entered 17,980 tons, and in 1855 to 103,333 tons, viz., cleared 49,773 and entered 53,560 tons. The shipping owned in the State in 1850 amounted to 11,272 (registered 1,221 and steam 2,185) tons, and in 1855 to 14,712 (registered 9,240 and steam 371) tons; and the shipping built amounted to 79 and 274 tons in the years respectively. The foreign trade centers principally at Key West, Pensacola, Appalachicola, and St. John's; St. Augustine and Fernandina on the Atlantic and St. Mark's on the Gulf have little foreign trade, but are

* The census of 1855 (which omits Duval County) gave the total population at 110,823, of which 60,493 were whites, 804 free colored persons, and 49,526 slaves. The same census returns 2,265,503 acres as occupied land.

† Namely, horses 10,848, and asses and mules 5,002.

‡ Namely, milch cows 72,876, working oxen 5,794, and other cattle 182,415.

actively engaged in coasting. A considerable portion of the material exported from Pensacola and Appalachicola is the produce of Alabama and Georgia.

30. Internal trade has hitherto had few advantages for its development. This defect, however, is now being remedied by the construction of several lines of railroad. The most important of these will traverse the whole length of the State from Jacksonville to Pensacola, 300 miles, and another will extend in a northeast and southwest direction across the peninsula between Fernandina and Cedar Keys, 140 miles. Otherwise a railroad is now being constructed from Pensacola to Montgomery, Ala., and another from Tallahassee into Georgia. The whole system will probably be completed by the year 1860. Already sections of each are finished and the cars running on them. The railroad between Fernandina and Cedar Keys must be regarded as a work of commercial necessity: it will form a part of a steam route from the Atlantic to the Gulf ports, and not only greatly shorten the distance, but avoid the necessity of rounding the dangerous point to the south.

31. The constitution of Florida secures the right of voting to every free white male citizen of the United States who has resided in the State two years and in the country six months next preceding an election, and whose name is on the registration list. The general election is held on the 1st Monday in October.

32. The general assembly consists of a senate of 19 members elected for four years (one half biennially), and a house of representatives of 40 members elected for two years. Senators must be 30 and representatives 21 years of age. The sessions are held biennially, commencing on the 4th Monday in November.

33. The governor is chosen for four years. He must be 30 years of age, have been a citizen of the United States for 10 years, and a resident of the State for five years next preceding election. In case of disability his office is exercised by the president of the senate or speaker of the house. The secretary of state is elected for four years, and the state treasurer and controller for two years, by the joint vote of the general assembly.

34. The judiciary is vested in a supreme court, circuit courts, and justices of the peace. The supreme court is composed of a chief and two associate judges, and holds four sessions annually, viz., one at Tallahassee, one at Tampa, one at Jacksonville, and one at Marianna. The jurisdiction of this court is entirely appellate. For circuit court purposes the State is divided into the western, middle, eastern, and southern circuits, each of which has a judge and solicitor. These courts have original jurisdiction in all matters civil as well as criminal. All judges are elected by the people.

35. The total receipts into the public treasury for the year ending 31st October, 1856, amounted to $94,022, and the expenditures to $76,430. The State debt at the same time amounted to $193,000. In 1850 the valuation of taxable property was $23,198,734, and in 1855, $49,461,461.

36. The total number of free persons having been in attendance at school in 1850 was returned at 4,812, or one to every 10.03 of the total free population. On the 1st June of that year the condition of the schools was as follows:

Schools.	Number.	Teachers.	Scholars.	Income.
Primary and public schools	69	73	1,878	$22,386
Academies and private schools	34	49	1,251	3,129

—making a total of 103 schools, 122 teachers, and 3,129 scholars, and an annual income of $25,515. The number of free persons over 20 years of age who were unable to read and write was 4,129, of whom 3,858 were whites and 270 free colored persons, and 3,834 were Americans and 295 foreigners.

37. The Methodist and Baptist denominations are the most numerous in this State, together claiming three fourths of the whole population; next to these rank the Presbyterian, and then the Episcopal and Roman Catholic. In all the State there were 177 churches with accommodation for 44,960 persons, and the value of church property in 1850 was $165,400.

38. Tallahassee (latitude 30° 38′ north, and longitude 84° 36′ west) is the political capital of the State. Population, 1,391. Pensacola, Appalachicola, San Augustine, and Key West are its chief ports. Pensacola, on the bay so called, has a fine anchorage (latitude 30° 24′ north, and longitude 87° 10′ 12″ west), and enjoys a considerable coasting trade. Population, 2,164. It is the site of a naval station. Appalachicola, on a bluff at the west side of the mouth of the river of the same name, has a deep and safe harbor, and is the outlet of an extensive country. Population about 1,600.

39. San Augustine, the oldest town in the State (latitude 29° 48′ 30″ north, and longitude 81° 35′ west), is situate two miles back from the Atlantic, on an inlet in the rear of a small island. The inlet, about one-half mile wide, forms a capacious and secure harbor, and admits vessels of large burden. Population, 1,934. On account of its fine climate, this city is the resort of invalids in the winter season.

40. Jacksonville, on the St. John River, is a prosperous town of 1,045 inhabitants, and is the eastern terminus of the Florida, Atlanta and Gulf Railroad. Fernandina, a new town at the north end of Amelia Island, is the northern terminus of the Florida Railroad, the western terminus of which is at Cedar Keys on the Gulf.

41. Key West, on the islet so called (latitude 24° 32′ north, and longitude 81° 47′ 40″ west), is the key of the United States to the Florida Pass and Gulf of Mexico. The harbor is capacious, safe, and easy of access. Vessels drawing 22 feet water may enter, and it is the only port between Pensacola and Hampton Roads admitting such. The principal business of the place is "wrecking," but numbers are employed in fishing, sponging, salt making, and other similar occupations. Steamers to and from the Havana touch at Key West. Population, 2,367.

42. Florida was discovered in 1496, by Cabot, and was visited by Ponce de Leon in 1512. In 1562 we find the French and Spaniards contesting their respective rights to the soil. San Augustine was founded in 1564, and Pensacola in 1596. The Spanish settlements in the country were never of great extent, and with the exception of establishing a few military posts and missions, the settlers never ventured far from the coast.

43. It was ceded to Great Britain in 1763, and from this period its real prosperity commenced. The British held the country for twenty years, and in that short period greater improvement was effected than in the previous two hundred years of Spanish occupancy. On the retrocession, in 1783, most of the settlers left the country for the adjoining States, and for a period of nearly forty years to its cession to the United States in 1821, every interest of the colony languished or struggled along with difficulty.

44. Immigration now again set into the Territory, but the unsurveyed state of the lands, the uncertainty of titles, etc., militated against its rapid settlement, and the fierce and turbulent Indian race, which had made it a battle-ground for two hundred and fifty years, occupied the best lands, rendering it impossible to obtain them for cultivation. Yet in spite of these obstacles a considerable population planted themselves in the country. From 1835 to 1842 the Seminole war raged, and suspended what progress had been hitherto effected; but since the latter year the country has progressed with reasonable rapidity. Florida was admitted as a State of the Union on the 3d March, 1845.

STATE OF ALABAMA.



1. Alabama is situated between latitudes 30° 10′ and 35° north, and longitudes 84° 53′ and 88° 30′ west; and is bounded on the north by Tennessee, on the east by Georgia and Florida, on the south by Florida and the Gulf of Mexico, and on the west by Mississippi.

2. The general length of the State, north and south, is 278 miles, or including a strip of land projecting between Florida and Mississippi to the Gulf 336 miles, and the general breadth is 160 miles, the greatest breadth being about 200 miles. The area is computed at 50,722 square miles, or 1.73 per cent. of the total area of the United States.

3. The sea-coast of Alabama, extending from the Rio Perdido (which separates this State from Florida) to the eastern line of Mississippi, has a direct length of only 58 miles, but including its bays and irregularities of 247 miles. In this short line, however, is contained Mobile Bay, one of the largest and deepest indentations of the Gulf coast, and into this the principal rivers of the State empty themselves.

4. The northeastern part of Alabama, being traversed by several off-shoots of the Alleghanies, which terminate in this State, is decidedly mountainous, but presents nowhere any great elevations. South of this mountain region the surface has a general declivity toward the Gulf of Mexico, first descending gradually from mountain to high hills, and then sinking to a vast plain, scarcely broken except by gentle swells; and the more southern portion is a dead level, but little above the water-surface of the ocean.

5. The southern half of the State consists of extensive prairies and pine barrens, interspersed with alluvial river bottoms of great fertility; and the lands of the middle section and the north are generally covered with a good, if not a very rich and productive soil. In the valley of the Tennessee, which occupies so large an area in the northern part of the State, alluvion is the prevailing formation; and the rich bottom lands of this region are extensive, and form the best agricultural districts within the limits of the State. The valleys of the Alabama and other great rivers are equally fertile.

6. With the exception of the Tennessee, which takes a circular sweep through northern Alabama, but receives no considerable tributaries on its southern side, all the rivers flow toward the Gulf of Mexico. Nearly the whole surface, indeed, is drained into one single channel, the Mobile River, which, by several large arms, gathers up the waters of the whole southern slope, except those of a comparatively small tract in the southeast. The Chattahoochee, although a large river, receives only a few inconsiderable streams from this State; and the Choctawatchee, Conecuh, and Perdido are, in point of size, secondary rivers.

7. The Mobile, the great river of Alabama, is formed by the junction of two large rivers, the Alabama and Tombigbee, fifty miles above Mobile Bay. A few miles below its junction it gives out a large branch, called the Tensaw, which also receives an arm from the Alabama, and reaches Mobile Bay at Blakely.

8. The Tombigbee, or western branch of the Mobile, is formed by the confluence of two large streams, the Tombigbee proper from Mississippi, and the Black Warrior from north Alabama. It admits vessels drawing five or six feet water to St. Stephen's, 93 miles from the bay; and steamboats ascend the Black Warrior to Tuscaloosa, 285 miles, and the Tombigbee proper to Columbus in Mississippi, about 300 miles. The length of this river, by its tortuous channel, is about 450 miles, and it is boatable almost to its sources.

9. The Alabama, or eastern branch, is navigable for vessels of six feet draft to Claiborne, 60 miles above its junction with the Tombigbee; 150 miles farther to the mouth of the Cahawba it has four or five feet of water, and to the junction of the Coosa and Tallapoosa, of which it is formed, it has in the shallowest parts three feet of water. Steamboats ascend it to Montgomery, 300 miles by the course of the river, and even to Wetumpka, on the Coosa, several miles above. The Coosa and Tallapoosa both have their rise in Georgia. The navigation of all these rivers, however, is interrupted during the season of low water in the summer months.

10. Alabama has great mineral resources. The whole central region is underlaid with vast beds of iron ore, or occupied by coal measures of great thickness and extent. The coal found here is of a highly bituminous character, and well adapted to steamboats and factories, and being in juxtaposition with the iron ores, will greatly facilitate the progress of mining industry. The country in this region is also well wooded, fertile, and easily attained from all directions, and in the succession of events must indubitably become of great importance to the whole South.

11. Besides coal and iron, Alabama yields lead ore, manganese, several descriptions of ochres, limestone, and marbles; and in the northeastern section gold in considerable quantities has been collected. Lead ore or galena is found in the limestone formation, chiefly in Benton County; it is a pure sulphuret and granular, closely attached to the rock, and passes it in irregular bunches. The carbonate is also found, and in its neighborhood there are veins of calx-spar and sulphate of barytes. Manganese occurs also in the limestone region, and has been used in the manufacture of chloride of lime. The ochres occur chiefly near Bucksville, and the red ochre found here is sufficiently rich to be used as an ore of iron.

12. The marbles found in this State occur most plentifully on the Cahawba, and many of the beds afford specimens of great beauty; some are gray, with red veins, others are red and yellow, and specimens with greenish veins are not uncommon. There is also a buff-colored marble, filled with organic remains, and beds of white crystalline marble, clouded with red, occur. Black marble is also abundant. The compactness and thickness of these formations is such as to elicit a favorable opinion of their value, and cause them to be looked upon with great interest in connection with the industrial resources of the State.

13. The mineral resources of Alabama, however, have never been thoroughly examined; but there can be little doubt, accepting the present knowledge of its mineral deposits as an index, that the researches now being instituted will result in further and more valuable disclosures of a vast wealth of mineral within its borders, and be the means of placing the State in the first rank of mineral-producing districts.

14. The soil, climate, and vegetation vary with the position and elevation of its several parts. In the north, where mountain is the prevailing feature, the soil is but moderately fertile, but in the intervales there is much that can not be excelled. The climate is here moderate and vegetation hardy: it is the region of the cereals, and a fine grazing country. The central parts of the State, less elevated and undulating, are well watered, and in the river bottoms extremely rich and productive. The valley of the Alabama is one of the most fertile regions of the Union. In the south the climate is very warm, and the soils are rich, but with great exceptions. The sugar-cane has been found to succeed well in the extreme southern strip between Florida and Mississippi, and indigo was formerly raised in considerable quantities; rice also grows well in the alluvial lands near the Gulf; but cotton, which thrives throughout the State, is the great agricultural staple, and in the production of this staple Alabama exceeds every other State.

15. In 1850 Alabama contained 771,623 inhabitants, being 15.21 to the square mile, or 3.32 per cent. of the total population of the Union. The distribution of the population into the counties was as follows:

NORTHERN ALABAMA.

Counties.	Population.	County Seats.	Counties.	Population.	County Seats.	Counties.	Population.	County Seats.
Benton	17,163	Jacksonville.	Hancock	1,542	Hancock C. H.	Madison	26,427	Huntsville.
Blount	7,367	Blountsville.	Jackson	14,088	Bellefonte.	Marion	7,883	Pikeville.
Cherokee	13,884	Centre.	Jefferson	8,989	Elyton.	Marshall	8,846	Warrenton.
De Kalb	8,245	Lebanon.	Lauderdale	17,172	Florence.	Morgan	10,125	Somerville.
Fayette	9,681	Fayette.	Lawrence	15,258	Moulton.	St. Clair	6,829	Ashville.
Franklin	19,610	Russellville.	Limestone	16,483	Athens.	Walker	5,124	Jasper.

SOUTHERN ALABAMA.

Autauga	15,023	Kingston.	Covington	3,645	Andalusia.	Pickens	21,512	Carrollton.
Baldwin	4,414	Blakely.	Dale	6,382	Newton.	Pike	15,920	Troy.
Barbour	23,632	Clayton.	Dallas	29,727	Cahawba.	Randolph	11,581	Wedowee.
Bibb	9,969	Centreville.	Greene	31,441	Eutaw.	Russell	19,548	Crawford.
Butler	10,886	Greenville.	Henry	9,019	Abbeville.	Shelby	9,536	Columbiana.
Chambers	23,960	Chambers.	Lowndes	21,915	Haynesville.	Sumter	22,250	Livingston.
Choctaw	8,389	Butler.	Macon	26,898	Tuskegee.	Talladega	18,624	Talladega.
Clarke	9,786	Clarkesville.	Marengo	27,831	Linden.	Tallapoosa	15,584	Dadeville.
Coffee	5,940	Wellborn.	Mobile	27,600	Mobile.	Tuscaloosa	18,056	Tuscaloosa.
Conecuh	9,322	Sparta.	Monroe	12,013	Claiborne.	Washington	2,713	O. Washington.
Coosa	14,543	Rockford.	Montgomery	29,711	MONTGOMERY.	Wilcox	17,352	Camden.
			Perry	22,285	Marion.			

—and this population was contained in 73,786 families inhabiting 73,070 dwellings.

16. Of the total population 426,514 (55.27 per cent.) were whites—219,483 males and 207,031 females, 2,265 free colored—1,056 males and 1,209 females, and 342,844 slaves—171,804 males and 171,040 females. Of the free population 420,490 (98.07 per cent.) were Americans, of whom 237,542 were born in Alabama; 6,638 (1.55 per cent.) were foreigners, and 1,109 were of unascertained origin. The number of Alabamans in other States was 83,388. In 1820 Alabama contained 127,901 inhabitants; in 1830, 309,527; in 1840, 590,756, and in 1850 (as above), 771,623. In 1855 a State census gave the population at 841,704, viz., 464,456 whites, 2,466 free colored, and 374,782 slaves.

17. Of 100,467 free male persons over 15 years of age engaged in industrial pursuits in 1850 the classification was as follows: 16,630 in commerce, trade, manufactures, mining, etc.; 68,635 in agriculture; 7,683 in labor not agricultural; 807 in sea and river navigation; 2,610 in law, medicine, and divinity; 3,638 in other pursuits requiring education; 323 in government civil service; 43 in domestic service, and 97 in other occupations.

18. The number of farms and plantations in Alabama in 1850 was 41,964, covering 12,137,681 (improved 4,435,614 and unimproved 7,702,067) acres, or two fifths of the whole surface of the State. The cash value of these is stated to have been $64,323,224, and the value of implements and machinery thereon $5,125,663.

19. The quantity of livestock in the State in the years 1840 and 1850 respectively was as follows:

1840	horses, mules, etc.,	143,147	neat cattle,	668,018	sheep,	163,243	swine,	1,423,873
1850	" "	187,896	"	728,015	"	371,880	"	1,904,540

—and the value of the stock in 1850 was $21,690,112, and in the year animals to the value of $4,823,485 had been slaughtered. In 1850 the number of mules and asses was 59,895, and the neat cattle comprised 227,791 milch cows, and 66,961 working oxen. In the same year 4,008,811 pounds of butter, and 31,412 pounds of cheese were made; and the wool produced in 1840 amounted to 220,353, and in 1850 to 657,118 pounds.

20. The grain crops (bushels) in 1840 and 1850 were comparatively as follows:

1840	wheat,	838,052	rye,	51,008	oats,	1,406,353	Indian corn,	20,947,004	barley,	7,692	buckwheat, 58
1850	"	294,044	"	17,261	"	2,965,596	"	28,754,048	"	3,958	" 348

—making a total of cereals in 1840 of 23,250,167 bushels, and in 1850 of 32,035,355 bushels. The potato crop in 1840 was 1,708,356, and in 1850 (including Irish 246,001) 5,721,205 bushels; that of peas and beans in 1850 amounted to 892,701 bushels, and that of hay in 1840 to 12,718, and in 1850 to 32,685 tons.

21. The Southern staple crops (pounds) were as follows:

1840	cotton,	117,138,823	sugar,	10,143	rice (clean),	149,019	tobacco,	273,302
1850	"	225,771,600	"	87,643	" (rough),	2,312,252	"	164,990

—and in 1850 molasses 83,428 gallons.

22. And among the miscellaneous products of 1850 are noted—beeswax and honey, 897,021 pounds; flax, 3,921 pounds; hemp, 10,000 pounds; wine, 220 gallons, etc. The value of the products of market-gardens in 1850 was $84,821, and of orchards $15,408.



PICKING COTTON.

23. The total value of agricultural products in 1840 was $23,833,470, and in 1850, $44,223,955.

24. The capital invested in manufactures, mining, and mechanic arts in 1850 amounted in the aggregate to $3,450,606. The number of separate establishments was 1,026 employing 4,938 hands, and which in the year preceding had consumed raw material to the value of $2,224,960, and paid wages to the amount of $1,106,112. The value of the goods produced was $4,528,878. Among the establishments were 12 cotton mills which used 5,208 bales of cotton, and produced manufactures to the value of $382,260; 12 iron works which produced to the value of $201,126, etc. In 1840 the total value of the manufactures of Alabama was $3,319,752.

25. The value of goods manufactured in families was in 1840 $1,656,119, and in 1850, $1,934,120.

26. Mobile is the only port of Alabama engaged in direct foreign commerce. For the years ending 30th June, 1850 and 1855, the value of exports was $10,544,858 and $14,270,565, and of imports $865,362 and $619,964. In the same years there cleared 112,985 and 145,615 tons of shipping, and entered 96,020 and 69,832 tons. The whole of the exports were of domestic origin. The shipping owned in the State amounted in 1850 to (registered 7,403 and steam 12,028) 24,157, and in 1855 to (registered 12,322 and steam 20,515) 36,274 tons; and the shipping built in the two years to 113 and 729 tons.

27. The movement of the commerce and navigation of Alabama in the 10 years ending with 1854–55 has been as follows:

Years.	Value of Exports.	Value of Imports.	Tonnage Cleared.	Tonnage Entered.	Shipping owned. Registered.	Shipping owned. Steam.	Shipping owned. Total.	Tonnage Built.
1846	$5,260,317	$259,607	—	—	—	—	—	—
1847	9,054,580	390,161	—	—	—	—	—	—
1848	11,927,749	419,396	—	—	—	—	—	—
1849	12,823,725	657,147	148,116	87,071	7,085	13,325	25,067	106
1850	10,544,853	865,362	112,985	96,020	7,403	12,028	24,157	113
1851	18,528,824	413,446	121,265	55,684	8,579	13,568	27,327	354
1852	17,385,704	588,382	163,195	87,289	7,412	16,225	28,533	93
1853	16,786,913	809,562	143,685	79,822	8,171	16,781	28,040	—
1854	13,911,612	587,782	118,498	86,321	11,605	18,110	33,599	1,999
1855	14,270,565	619,964	145,615	69,832	12,322	20,515	86,274	729

28. The navigable Alabama and its branches demark the extent of the commercial field of Mobile. In the north the interior trade depends on the towns of the Tennessee and of the East and West Railroad which here crosses the State; while the east and southeast trade with those of the Chattahoochee River which has its outlet at Appalachicola. Mobile is also the commercial depôt of a large section of eastern Mississippi, which is traversed by the Tombigbee River and the Mobile and Ohio Railroad. The chief trading towns in the center of the State are Selma and Montgomery, both connected by railroad and river with large sections, and from which there is continuous connection by railroad entirely across the State, and from the latter a railroad is being built to Pensacola. Among other important works now in progress, and which will greatly facilitate domestic trade, is the northeast and southwest line, which will traverse the State from Chattanooga in Tennessee to Meridian in Mississippi, and when completed will form a section of a continuous line from Richmond and Petersburg in Virginia to the Mississippi at Vicksburg and New Orleans. Thus Alabama with its rivers and the great lines of railroad already completed, and with those to be com-

pleted at an early day, will be amply provided with means of communication and transit, and in realizing the advantages these will confer on its industry, will be amply repaid for the great cost its public works have entailed on its inhabitants.

29. Referring to the commercial returns (27), a great disproportion between the exports and imports is apparent. It is also obvious that the value of exports is not commensurate with the value of the commercial products of the State. These anomalies are explained by the coasting trade which is immense, and by which the great bulk of exportable articles is carried to the Atlantic ports, and nearly all the imports of foreign origin are brought from the same ports into this State. A large interchange is also effected by the railroads, which extending east from Alabama terminate at the sea-board.

30. In 1851 Alabama had only two banks and in 1856 four banks, with capital amounting to $1,800,580 and $2,297,800 in the years respectively. The liabilities of these institutions in the two years were as follows—circulation, $3,568,235 and $3,467,242; deposits, $1,474,963 and $2,837,556; due to other banks, $196,911 and $481,289; and other liabilities, $660,732 and $10,000. The assets were as follows—loans and discounts, $4,670,458 and $5,117,427; stocks, $70,361 and $713,026; real estate, $125,697 and $80,648; due by other banks, $960,334 and $1,421,445; notes of other banks, $63,865 and $561,482; other investments (in 1851), $81,000; and specie, $1,998,820 and $1,274,944.

31. The government of Alabama is based on the constitution of 1819 and subsequent amendments. It secures the right of voting to every white male adult citizen of the United States, who has resided in the State one year preceding an election. The general election is held on the 1st Monday in August.

32. The general assembly consists of a senate of 33 members elected for four years, one half biennially, and a house of representatives of 100 members elected for two years. Sessions are held every second (odd) year, commencing on the 2d Monday of November.

33. The governor of the State is elected for two years. In case of death or disability the president of the senate succeeds to the office. The chief administrative officers are chosen by the general assembly in joint ballot.

34. The judiciary consists of a supreme court, courts of chancery, circuit courts, etc. The supreme court judges and chancellors are elected for six years by the joint legislature; all other judges by the people, and for the same official term. The supreme court consists of a chief and two other justices, the attorney-general, a reporter, and a clerk, and has appellate jurisdiction only. Its sessions are held at the capital in January and June. For chancery purposes the State is divided into three divisions and 39 districts, in each of which one session of the court is held annually. There are 10 circuits, each having a judge and solicitor. Circuit courts have original jurisdiction in all criminal and in all civil cases involving $50 and upward. When less than $50 their jurisdiction is only appellate from the decisions of justices of the peace. Two sessions (spring and fall) are held in each county annually. In the county of Mobile criminal jurisdiction is exercised by a special city court which holds three sessions a year. Each of the counties has a judge of probate, who is also clerk of the circuit court.

35. The chief source of revenue is the general tax. For the years ending 30th September, 1850 and 1855, the receipts amounted to $499,670 and $715,236, and the expenditures in the same years to $499,670 and $342,859. At the end of the fiscal year, 1855, there was a balance in the treasury amounting to $1,192,653.

36. The public debt consists of two descriptions—foreign and domestic. The foreign debt in 1850 amounted to $4,053,666, on which the annual interest was $206,503, and in 1855 to $4,497,666, being nearly $230,000 interest. The domestic debt in the same years amounted to $2,340,300 and $1,390,467. The domestic debt is due to the common school, educational, and other funds belonging to the State.

37. The principal institutions supported by the State are the Penitentiary at Wetumpka, the Insane Hospital at Tuscaloosa, the Asylum for the Blind at Mobile, etc.

38. The whole number of children attending school in the years 1849–50 was 62,846, or one in every 6.82 of the total free population. The condition of the schools on the 1st June, 1850, was as follows:

Classification.	Number.	Teachers.	Scholars.	Income.
Primary and public schools	1,152	1,195	28,380	$315,602
Academies and private schools	166	380	8,290	37,237
Universities and colleges	5	55	567	41,255

—making a total of 1,323 schools, 1,630 teachers, and 37,237 scholars; and an annual income amounting to $414,094. The number of white and free colored persons over 20 years of age unable to read and write was 33,992, of whom 33,853 were Americans and 139 foreigners, and 33,757 were white and 235 free colored persons.

39. The statistics of the principal collegiate and professional schools in the State in 1855, were as follows:

Institutions.	Location.	Founded.	Professors.	Students.	Libraries.
University of Alabama	Tuscaloosa	1830	10	128	10,000
Wesleyan College	Florence	1830	6	104	2,600
Spring Hill College	Spring Hill	1830	20	86	7,500
Howard College	Marion	1841	6	80	2,400
Masonic University (female)	Selma	1847	7	33	2,000
Howard Theol. (Bapt.) Institution	Marion	1843	1	13	1,000

—there is also a Roman Catholic Seminary at Spring Hill, and the University has a law school.

40. The Baptist and Methodist denominations are more numerous than any other, and together include four fifths of the population, and the Episcopal denomination includes a full sixth of the whole. Thus little is left for other denominations, and among these only the Roman Catholics number above 5,000 communicants. The total number of churches in 1850 was 1,373, with accommodation for 439,605 persons, and the value of church property was estimated at $1,131,616.

41. Montgomery, the State capital, is situated on the left bank of the Alabama River, at the head of navigation, and 340 miles above Mobile. Latitude 32° 21′, and longitude 86° 26′. The city is built on a high bluff, and contains the Capitol and other State buildings. The vicinity is one of the most productive cotton regions of the State. Few cities are so amply provided with means of communication by river and railroad. These facilities of communication have made it one of the most flourishing cities of the Southwest. At the present day it is absolutely the second city of the State in population and wealth, and its progress has been rapid. In 1817 its foundations were laid; in 1840 it had 2,170, and in 1850, 4,935 inhabitants. In 1854 a local census gave the population at 6,695.

42. Mobile, the chief commercial city, is situated on the west bank of Mobile River, immediately above its entrance into Mobile Bay. Latitude 30° 41′ 48″, and longitude 87° 59′ 4″. The site is very little elevated above the water, but sufficiently so for all purposes of convenient drainage. The soil is dry and sandy. Immediately opposite the city, on the east, is a large low island, covered with high grass and rushes, and known as "the marsh;" above, on the north, is a large swamp, extending along the river, and back of the city the dry, sandy pine hills commence, affording delightful and healthy retreats from the heat, sickness, and annoyances of the city during the summer season; and here have sprung up the pleasant villages of Toulminville, Spring Hill, Cottage Hill, Summerville, and Fulton. South from the city the shores of the bay are dotted for many miles with elegant residences, and these spots have been usually exempt from epidemic diseases.

43. The city itself is not compactly built, except in the portions occupied by the commercial and business houses. The streets generally are wide, and run mostly north and south, and east and west; and of late years these have been abundantly planted with shade trees. The climate is warm and relaxing, and diseases, engendered of the swamps and heat, are prevalent during summer and autumn. The spring season, however, is delightful, and, moreover, the sanitary condition of the city has been greatly improved by the filling in of the swamps and an approved system of drainage. Water is supplied to the city through pipes, which convey it from a stream some miles distant.

44. The public buildings of Mobile are numerous, and some of them large and substantial edifices. The principal are the county court-house, several United States offices, the municipal court-house, the city hall, a jail, etc., also a splendid Roman Catholic cathedral, numerous churches of the various religious bodies, hospitals, schools, markets, a theater and circus, several first-class hotels, etc. The hospitals—the United States Marine and City—are large and commodious buildings, each capable of accommodating from 250 to 300 patients; and there are other charitable institutions worthy of notice, among which stand pre-eminent the Catholic and Protestant Orphan asylums, the Benevolent Society, and the Samaritan Society. There are also asylums for the blind and the deaf and dumb. The city has three cemeteries.

45. The port of Mobile is the only sea-port of the State open to foreign commerce, and from this point is shipped the great bulk of the cotton of eastern Mississippi and western Alabama. This is brought from the interior by river and railroad. The total quantity exported for the year ending 30th August, 1852, was 575,104 bales, or more than a sixth of the whole produce of the Union. Of this amount 307,513 bales were sent to England, 95,917 bales to France, and 27,048 to other foreign states, and 144,626 were sent coastwise to domestic ports. Staves, lumber, and naval stores are also shipped in large quantities.

46. As a commercial mart of the Gulf, Mobile is second only to New Orleans in its facilities and available position. Immense rivers connect it with an extensive and highly productive interior, and a fine bay gives it access to the sea. Mobile Bay sets up from the Gulf, and is 30 miles long and on an average 12 miles broad. It communicates with the Gulf by two straits, one on each side of Dauphin Island. The strait on the west side will not admit of vessels of more than five feet draft; but that on the east side, between the island and Mobile Point, has 18 feet water, the channel passing within a few yards of the point. There is a bar across the bay at its upper end, which has only eleven feet water. The entrance to the harbor is defended by Fort Morgan, situated on a long, low, sandy point at the mouth of the bay opposite Dauphin Island. The local trade of Mobile is very extensive and valuable, and its coasting trade extends to all the Gulf ports and those of the Atlantic as far north as Boston. It has also a large trade with the interior. Steamboats ply regularly to and from New Orleans, *via* the lakes, and up both branches of the Mobile River, and also to Havana, New York, etc. The system of railroads now in course of construction and partly completed will connect the port with the great interior, and also with the Atlantic sea-board and Northern lake-ports.

47. Mobile was originally a Spanish settlement, and up to a later period a portion of Spanish Louisiana. It was surrendered to the Americans in 1813. In 1814 it was chartered as a town, and in 1819 as a city. In 1814 the total valuation of property in the town was only $350,950; in 1819, $764,510; in 1824, $1,107,500; in 1829, $2,719,148; in 1834, $6,756,025; in 1839, $7,480,315; in 1844, $8,098,877; in 1849, $12,629,700, and in 1850, $12,985,790. The population of the city was, in 1830, 3,194; in 1840, 12,672, and in 1850, 20,515. The present (1855) population is estimated at 25,000.

48. The other important towns in Alabama, with their population in 1850, are noted in alphabetical order as follows: Athens, 25 miles west-by-north Huntsville, is a thriving place of 991 inhabitants; Blakely, on the Tensaw River, at its entrance into Mobile Bay, about 12 miles east-by-north Mobile City, is a thriving town, and has a harbor accessible to steamboats; Cahawba is a thriving town on the Alabama, 220 miles above Mobile. It is a cotton mart of some importance, and the seat of a United States land office; Claiborne, also on the Alabama, 200 miles from Montgomery, is a noted river-port, and stands at the head of sloop navigation; Decatur, on the Tennessee, is a town of 606 inhabitants. The Memphis and Charleston Railroad passes through it, 60 miles from Stevenson and 187 miles from Memphis. It is also the southern terminus of the Central Southern Railroad from Nashville, and railroads are projected southward to Columbus, Miss., and to Selma, Ala., and another eastward to Rome, Ga. It is a place of considerable trade; Eufaula, on the Chattahoochee, is a handsome town, finely situated on a bluff 200 feet above the river. It is the center of an active and increasing trade, and upward of 20,000 bales of cotton are annually shipped hence down the river. Railroads are projected to connect Eufaula with Brunswick, on the sea-board, *via* Albany, and also northward with Columbus; Florence, on the Tennessee, at the foot of Muscle Shoals, and nearly opposite Tuscumbia, is a flourishing town of 1,170 inhabitants. In the vicinity there are several large cotton factories. The river is navigable for steamboats to this place, 300 miles from its mouth, and a large shipping business is done. A bridge over the river connects it with the Memphis and Charleston Railroad, 144 miles from Memphis, and a railroad is projected which, when completed, will connect Florence with Nashville; Girard, on the Chattahoochee, opposite Columbus, Ga., is a town of about 1,200 inhabitants, and is a cotton mart of great importance. It is the eastern terminus of the Mobile and Girard Railroad, and also of the Columbus Branch of the Montgomery and

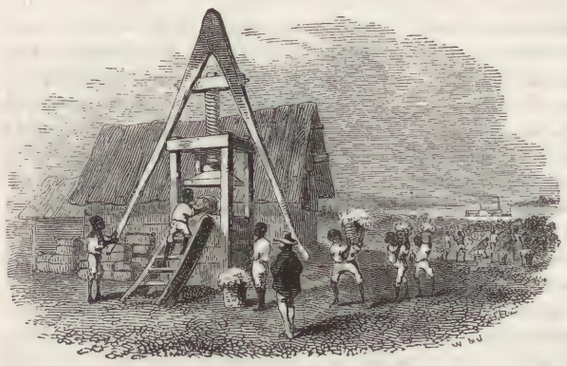
West Point Railroad. A bridge over the river connects the railroads of Alabama and Georgia; Gunter's Landing or Guntersville is a town on the Tennessee 35 miles southeast Huntsville. It has long been celebrated as a crossing-place and trading point, and is the projected point of junction of the Winchester and Alabama Railroad and of the Alabama and Tennessee Rivers Railroad, both now (1855) in process of construction; Huntsville is an important trading town on the line of the Memphis and Charleston Railroad, 60 miles from Stevenson and 211 from Memphis. It contains a very handsome court-house, a land office, six churches, and numerous warehouses, stores, etc. In 1850 it contained 2,863 inhabitants; Jacksonville is situated on a beautiful eminence in Tallasahatchee valley, 125 miles north-by-east Montgomery. In 1850 it had 716 inhabitants. It is on the Alabama and Tennessee Rivers Railroad, and one of the most flourishing towns on that line. A railroad is also projected here to Dalton, Ga., in the direction of Knoxville and Virginia; Marion, capital of Perry County, is a flourishing town, 80 miles west-north-west Montgomery. Population 1,544. It is the seat of Howard College; Selma, on the Alabama, is one of the principal trading towns of the interior. It is situated 70 miles below Montgomery, and on the line of the Alabama and Mississippi Railroad. It is also the southern terminus of the Alabama and Tennessee Rivers Railroad. The vicinity is a rich farming country and very populous, and the commerce of the town is commensurately large. Steamboats ply regularly to Montgomery and Mobile. Population 1,728; Stevenson is a new town on the Nashville and Chattanooga Railroad, 38 miles from Chattanooga, and is the point of junction of the Memphis and Charleston Railroad, 287 miles from Memphis; Talladega is a flourishing town of 1,320 inhabitants, 96 miles north-by-east Montgomery. The Alabama and Tennessee Rivers Railroad passes through it; Tuscaloosa is a thriving town on the Black Warrior, at the head of steam navigation, 125 miles northwest Montgomery. Latitude 33° 12′, and longitude 87° 42′. It was formerly the State capital, and is still one of the principal towns of the State, having an active trade, etc. The University of Alabama, founded in 1831, is seated here, and also the State Lunatic Asylum. It has manufactures of cotton and iron. The projected Northeast and Southwest Railroad, extending from Chattanooga, Tenn., to Meridian, Miss., will pass through this town. Population 2,961. Large quantities of cotton are annually shipped to Mobile; Tuscumbia, in the valley of the Tennessee, and about a mile south from that river, is an old and active trading town, to which steamboats ascend in high stages of the water. The Memphis and Charleston Railroad passes near the town, 144 miles from Memphis, and 127 miles from Stevenson. Population about 2,500; Tuskegee, in the valley of the Tallapoosa, is a flourishing village, 40 miles east-by-north Montgomery. Population 1,563; West Point, on the Chattahoochee, 40 miles above Columbus, and partly in Georgia, is an active business place, and the point of junction of the Montgomery and West Point and the Atlanta and Lagrange railroads; Wetumpka is situated at the head of steamboat navigation of the Coosa River, 15 miles north Montgomery. It is one of the principal cotton ports of the State, and the seat of the State Penitentiary. Population 3,016.



TUSCALOOSA OBSERVATORY.

49. Alabama was originally included within the territorial limits of Georgia, except the portion south of the 31st parallel, which belonged to Spanish Florida. In 1798 the Mississippi Territory was erected, which included the present States of Mississippi and Alabama, the lands of which had been previously ceded to the United States. In 1811 the country between the rivers Pearl and Perdido were taken possession of by the United States forces, and in 1813 formally attached to the Territory. In 1817 the western portion was erected into the State of Mississippi, and the eastern into the Territory of Alabama, which latter became a State in 1820. Before 1810 Alabama contained very few civilized inhabitants; but since its separate organization its increase has been rapid, and its general prosperity onward and sustained. At the present time it ranks in the Union the twelfth in population.

STATE OF MISSISSIPPI.



1. Mississippi is situated between latitudes 30° 10′ and 35° north, and longitudes 88° 12′ and 91° 41′ west, and is bounded on the north by Tennessee, on the east by Alabama, on the south by the Gulf of Mexico and Louisiana, and on the west by Pearl River and the River Mississippi, which separate it from Louisiana and Arkansas.

2. The greatest length of the State north and south is 336 miles, and the breadth varies from 116 miles in the north to 189 miles on the 31st parallel. Within these limits the area is computed at 47,156* square miles.

* According to the United States Census, 1850. Dr. Harper, in his Report on the Geology and Agriculture of the State (1857), gives the area at 45,463 square miles. In his report, however, the lineal measurements are incorrect, and hence little reliance can be placed on the deduction as to surface.

The Gulf coast has a length of only 88 miles, or, including its bays and irregularities, a line of 247 miles.

3. Every portion of the State is well watered; clear running streams penetrate it in every direction, and its rivers are numerous and wide-spreading. The Tennessee River laves the northeastern corner, and the Tombigbee, which rises in this section, has been navigated by steamboats to Aberdeen. The Mississippi washes the western border for a distance, by the circuitous course of its channel, of 530 miles, but in a straight line of not half that distance. From Memphis, just above the northern frontier of Mississippi, to Vicksburg, a distance of 450 miles, the uplands or river hills are separated from the river by inundated bottoms of greater or less width, and afford no site suitable for a port. Below Vicksburg the only eligible port is Natchez, 100 miles south, and below this point there is no bank of much magnitude above the reach of high water until we come to Baton Rouge, in Louisiana, and the only port between these places is Bayou Sara.

4. The Mississippi, however, receives several considerable streams from the most valuable parts of the State: the Yazoo is formed by the junction of the Yallobusha and Tallahatchee, which rise in the northern part of the State, near the head-waters of the Tombigbee, and flows into the Mississippi 12 miles above Vicksburg, after a course of 200 miles, 150 of which are navigable for steamboats. Big Black River is next in point of size, and enters the Mississippi immediately above Grand Gulf by a mouth 40 yards wide. Its length is 200 miles, and it is navigated by steamboats for 50 miles. The Bayou Pierre and the Homochitto are its other principal tributaries from this State; the latter enters it 43 miles below Natchez.

5. The other rivers of Mississippi have a southerly course to the Gulf of Mexico and the lagoons connected with it. The Amité has but a small part of its course in this State. The Pearl River rises near the center of the State, and flows through a fertile and populous region into the Rigolets, or outlet of Lake Pontchartrain. Below 31° north latitude it divides Mississippi from Louisiana, and has been navigated by steamboats to Jackson. The Pascagoula waters the southeastern section. It is formed by the confluence of the Chickasawha and Leaf rivers, and empties into the sound of the same name. It is navigable for 50 miles for vessels of six feet draft, and for boats 100 miles farther, but the bay at its mouth has only four feet of water.

6. The coast which extends along the Gulf of Mexico has no harbors except those of Mississippi City and Shieldsboro'. These, however, do not admit large vessels. A chain of low sand islands, six or seven miles from the shore, inclose several bays or sounds, the largest of which are Pascagoula Sound and Lake Borgne. Ship and Cat islands are eligible stations for ocean steamships.

7. The upper portion of the State, known as the Chickasaw Cession, has a rolling surface and an open champaign appearance, and is beautifully wooded with oak, hickory, etc., devoid of undergrowth. The uplands produce very abundantly, but the substratum of the country being sandy, they are soon ruined by the heavy rains. The valley lands are much more durable, the soil being heavier and darker, and are highly productive; but they are liable to be, and frequently are, submerged, acres at a time, under billows of sand washed from the uplands. Cotton has hitherto been the staple product. Memphis is the chief outlet of all this region.

8. Another section of north Mississippi is the prairie or Tombigbee country, covering the northeast part of the State, and extending far down on the Alabama line. This country is uniformly level, with scarcely a tree, covered by rank grass, dotted sometimes with pools and marshes, and intersected by dull, sluggish branches. The soil is a dark, heavy loam, coal black, and of surpassing strength and fertility. The mold is different from that of Lower Louisiana in this, that it is more of an original and less of a depository character, and also in being thick and highly adhesive, instead of light and ashy as the former. It is also corrosive, and deeply impregnated with lime. This section forms a beautiful and healthy range of counties finely watered, and produces cotton and the lighter grains.

9. A large portion of the State is known as East Mississippi, which really includes the southeast and part of the southern sections. Though one of the oldest, it is one of the thinnest settled parts of the State. The character of the land is mixed—some poor and some very rich, or broken hills and fertile valleys. Cotton is produced, but to no great extent; corn and small grain abundantly, and sometimes rice. It is also famous for its cattle. Indeed, the region possesses many of the pleasant characteristics of a pastoral country. The natural market of this section is the port of Mobile, and some of it seeks that of New Orleans by way of the Pearl River.

10. The portion of the State bordering on the Gulf shore, with its bathing, fish, and oysters, and pleasant summer retreats, is well known to the denizens of New Orleans, and is becoming to the South what Newport and Cape May are to the North. Back from the seacoast is generally a sandy, broken tract, covered by quantities of fine pine, which is now being worked off the land for timber and naval stores. The southwest and country above it is the oldest settled portion of the State; the soil is rich and the population wealthy.

11. Commencing some fifty miles below the mouth of the Yazoo River, inclining to the interior for about 100 miles in a line gently circling northward up through the center, then diverging to the northwest to a point below Memphis, is to be found as noble a sweep of country as any in the world. It is washed by the Mississippi from Memphis to Vicksburg, and is intersected by the Yazoo, its head-waters, and tributaries, throughout its greatest extent. The facilities for market are unequaled. The Yazoo River, running through nearly its whole extent, is an excellent stream, affording steam navigation as high as the southwest corner of Marshall County. The soil is of a most productive character, being, as it is called, "swamp land." It possesses all the strength of the prairie lands, without their adhesive and corrosive nature. This region has but recently come into cultivation, it having hitherto been considered damp and unhealthy; but this assumption experience has much modified. The great drawback of these lands, however, as before mentioned, is their liability to overflow from freshets in the Mississippi River.

12. In 1850 Mississippi contained 626,526 inhabitants, being 12.86 to the square mile, or 2.61 per cent. of the whole population of the Union. This population was distributed into the several counties as follows:

MISSISSIPPI, LOUISIANA & ARKANSAS.

1/3,623,775 of Nature

SCALE OF STATUTE MILES, 69.16. to 1°

0 10 20 40 60 80

50 Geographical or 57.63. Statute Miles to one inch.

EXPLANATION

State Capitals..... ✲ JACKSON
Important Places ⊙ Natchez
County Towns ⊙ Fayette
Rail Roads
Battle Fields ⚔ 1836

VICINITY of NEW ORLEANS

SCALE OF MILES. 0 1 2 3 4

LONGITUDE WEST FROM WASHINGTON

Entered according to Act of Congress, in the Year 1856 by J.H. Colton & Co. in the Clerks Office of the District Court of the United States for the Southern District of New York

NORTHERN MISSISSIPPI.

Counties.	Population.	County Seats.	Counties.	Population.	County Seats.	Counties.	Population.	County Seats.
Attala	10,991	Kosciusko.	Lafayette	14,069	Oxford.	Sunflower	1,102	M'Nutt.
Bolivar	2,577	Bolivar.	Lowndes	19,544	Columbus.	Tallahatchie	4,643	Charleston.
Carroll	18,491	Carrollton.	Marshall	29,689	Holly Springs.	Tippah	20,741	Ripley.
Chickasaw	16,369	Houston.	Monroe	21,172	Athens.	Tishemingo	15,490	Jacinto.
Choctaw	11,402	Greensboro'.	Noxubee	16,299	Macon.	Tunica	1,314	Commerce.
Coahoma	2,780	Delta.	Oktibbeha	9,171	Starkville.	Winston	7,956	Louisville.
De Soto	19,042	Hernando.	Panola	11,444	Panola.	Yallobusha	17,258	Coffeeville.
Itawamba	13,528	Fulton.	Pontotoc	17,112	Pontotoc.			

SOUTHERN MISSISSIPPI.

Adams	18,601	Natchez.	Issaquena	4,478	Tallalula.	Newton	4,465	Decatur.
Amité	9,694	Liberty.	Jackson	3,196	Jackson C. H.	Perry	2,438	Augusta.
Claiborne	14,941	Port Gibson.	Jasper	6,184	Paulding.	Pike	7,360	Holmesville.
Clarke	5,477	Quitman.	Jefferson	13,193	Fayette.	Rankin	7,227	Brandon.
Copiah	11,794	Gallatin.	Jones	2,164	Ellisville.	Scott	3,961	Hillsboro'.
Covington	3,338	Williamsburg.	Kemper	12,517	De Kalb.	Simpson	4,734	Westville.
Franklin	5,904	Meadville.	Lauderdale	8,717	Marion.	Smith	4,071	Raleigh.
Greene	2,018	Leakesville.	Lawrence	6,478	Monticello.	Warren	18,120	Vicksburg.
Hancock	3,672	Pearlington.	Leake	5,533	Carthage.	Washington	8,389	Greenville.
Harrison	4,875	Mississippi City.	Madison	18,173	Canton.	Wayne	2,892	Winchester.
Hinds	25,340	Jackson.	Marion	4,410	Columbia.	Wilkinson	16,914	Woodville.
Holmes	13,928	Lexington.	Neshoba	4,728	Philadelphia.	Yazoo	14,418	Benton.

—and the whole was contained in 52,107 families, and occupied 51,681 dwellings.

13. Of the total population 295,718 (48.76 per cent.) were whites—156,287 males and 139,431 females, free colored 930—474 males and 456 females, and 309,878 slaves—154,674 males and 154,626 females; and of the free population 291,114 (98.1 per cent.) were Americans, of which number 140,885 were born in this State; 4,958 were foreigners, and 576 of unascertained origin. In other States of the Union there were 31,588 natives of Mississippi.

14. Of 75,082 free male persons over 15 years of age that were employed in industrial pursuits in 1850 the numbers were thus classified: 12,053 in commerce, trade, manufactures, mechanic arts, and mining; 50,284 in agriculture; 6,067 in labor not agricultural; 292 in sea and river navigation; 2,329 in law, medicine, and divinity; 3,380 in other pursuits requiring education; 377 in government civil service; 69 in domestic service, and 231 in unspecified occupations.

15. Mississippi in 1850 contained 33,960 farms and plantations, covering 10,490,419 (improved 3,444,358 and unimproved 7,046,061) acres, or about one third the total area of the State. The value of these was estimated at $54,738,634, and the value of implements and machinery thereon was $5,762,927.

16. The livestock in the State in 1840 and 1850 amounted to the following enumerations:

1840	horses, mules, etc.,	109,227	neat cattle,	623,197	sheep,	128,367	swine,	1,001,209
1850	"	"	170,007	"	733,970	"	304,929	"	1,582,734

—and the value of the stock of 1850 was $19,403,662; and the value of animals slaughtered in the year was $3,636,582. In 1850 there were in the State 54,547 asses and mules, and among the neat cattle 214,231 milch cows and 83,485 working oxen. In the same year the products of the dairy consisted of 4,346,234 pounds of butter, and 21,191 pounds of cheese; and the whole crop in 1840 and 1850 amounted to 175,196 and 559,619 pounds respectively.

17. The grain crops in the two years amounted in bushels to the following quantities:

1840	wheat,	196,626	rye,	11,444	oats,	668 624	Indian corn,	13,161,237	barley,	1,654	buckwheat,	61
1850	"	137,990	"	9,606	"	1,503,288	"	22,446,552	"	228	"	1,121

—or a total in 1840 of 14,039,646 bushels, and in 1850 of 24,098,785 bushels. The potato crop of 1840 was 1,630,100, and in 1850 (including 261,428 Irish), 5,003,277 bushels; that of peas and beans in 1850 was 1,072,757, and that of hay in 1840 was 171, and in 1850, 12,504 tons.

18. The staple Southern crops (pounds) in the two years consisted of—

1840	cotton,	193,401,577	sugar,	77	rice (clear),	777,195	tobacco,	83,471
1850	"	193,716,800	"	8,000	" (rough)	2,719,856	"	49,960

—and in 1850 molasses 18,318 gallons.

19. Among the miscellaneous products of 1850 are also noted—beeswax and honey, 397,460 pounds; flax, 665 pounds; hemp, 14 tons, and wine, 407 gallons. The value of market-garden products was $46,250, and of orchard products, $50,405.

20. The total value of agricultural products in 1840 was $26,297,666, and in 1850, $36,802,141.

21. In 1850 the number of establishments engaged in manufactures, mechanic arts, and mining was 877, which in the aggregate employed a capital of $1,833,420, and gave employment to 3,173 hands. The value of raw material consumed in the year was $1,290,271, and the cost of labor $775,128. The products of the year were valued at $2,972,038. None of the establishments are on a large scale. In 1840 the value of manufactured products was $2,879,425.

22. The manufactures produced in families, and not included in the above, were valued—in 1840 at $682,945, and in 1850 at $1,164,020.

23. Mississippi has little or no direct foreign commerce. In some years a small amount of imports is noted in the official returns—in 1855 to the value of $1,661. Otherwise its connection with foreign countries is through New Orleans and Mobile. Pearl River and Vicksburg are ports of entry. The shipping owned at these ports in 1850 amounted to 1,828 (steam 675) tons, and in 1855 to 2,475 (steam 588) tons. The shipping built in the State in 1850 amounted to (*nil*) tons, and in 1855 to 369 tons.

24. The coasting and river trade is very extensive, and employs a large tonnage. The coasting trade is chiefly directed to New Orleans and Mobile, while that of the Mississippi and its tributaries belongs altogether to the first-named port. Through these two ports the whole foreign business of the State is transacted. Internal trade is facilitated by several important railroads, two of which terminate respectively at New Orleans and Mobile, and extend north through the length of the State to connections on the north frontier. From Vicksburg a railroad extends east and through Alabama, etc., to the Atlantic sea-board, and there are other lines which have their termini on the Mississippi, at Memphis and St. Francisville. When all these lines are completed (they are not as yet), the commerce of the Gulf and that of the Northern lakes and Upper Mississippi, and that between the Lower Mississippi and the Atlantic, will be connected, and Mississippi thus become one of the great States, through which their interchanges will be transmitted; and, at the same time, the State itself will reap the benefits of a development which otherwise might be indefinitely postponed.

25. Mississippi has only one bank, the capital of which in 1851 amounted to $118,460, and in 1856 to $240,165. The assets in the years respectively consisted of—loans and discounts, $112,275 and $488,411; due by other banks, $302,641 and $81,152; other assets, $8,400 and $25,247, and specie, $—— and $7,744. The liabilities were as follows: circulation, $161,390 and $324,080; deposits, $4,500 and $35,606, and other liabilities (1851), $142,390.

26. The government is based on the constitution of 1817 and the amendments thereof. The right to vote is secured to every adult free white male person, a citizen of the United States, resident in the State for one year, and in the town or county for four months next preceding an election. General elections are held on the 1st Monday and Tuesday in November.

27. The legislature is composed of a senate of 32 members, chosen for four years, one half biennially, and a house of representatives of 92 members, elected for two years. The legislature meets at Jackson on the 1st January every second year. The governer is chosen for two years. He must have been a citizen of the United States for twenty years, and a resident of the State for five years.

28. The judiciary is exercised by a high court of errors and appeals, circuit courts, and probate courts. The superior and vice-chancery courts have been abolished. The high court has appellate jurisdiction only, and holds two terms annually at the capital, and one at Oxford. This court consists of three judges, the attorney-general, and a reporter. The circuit courts have original jurisdiction in all civil cases in which the sum in controversy exceeds $50, and has exclusive criminal jurisdiction. For the purposes of this court the State is divided into ten districts, each of which elects a judge and attorney for four years, and a term is held in each county twice a year. Probate courts, with a judge and clerk, are held monthly in the several counties. The probate clerk is also register of deeds. All judicial officers are elected by the people.

29. The revenue of the State is derived chiefly from taxation. In the years ending 30th April, 1850 and 1855, the total income amounted to $379,402 and $572,656, and the expenditures for the same years was $284,999 and $313,248. The absolute debt of the State amounts to $2,271,707, and the contingent debt to $5,000,000, or a total of $7,271,707. The debt of this State has been repudiated. The valuation of taxable property in 1850 was $208,422,167, and in 1855, $251,525,006.

30. The institutions supported in whole or partly by the public treasury are the State University at Oxford, the State Prison at Jackson, and asylums for the blind, the deaf and dumb, and the insane, at Jackson.

31. The total number of persons attending school in the year 1849–50 was 48,803, or one in every 6.06 of the white or in every 12.4 of the total inhabitants. Free colored persons are not admitted to the schools. The condition of the schools on 1st June, 1850, was as follows:

Classes of Schools.	Number.	Teachers.	Scholars.	Income.
Primary and public schools	782	826	18,746	$254,159
Academies and private schools	171	297	6,628	26,236
Universities and colleges	11	45	862	42,400

—making a total of 964 schools, 1,168 teachers, and 26,236 scholars, and an annual income of $322,795. The number of persons over 20 years of age who could not read and write was 13,528, of whom 13,447 were Americans and 81 foreigners, and 13,405 white and 123 free colored persons.

32. The principal collegiate and professional schools in the State in 1855 were as follows:

Institutions.	Location.	Founded.	Professors.	Students.	Libraries.
Oakland College	Claiborne Co.	1830	5	73	6,700
University of Mississippi	Oxford	1844	12	229	4,200
Mississippi College	Clinton	1851	5	27	1,270
Madison College	Sharon	1852	5	58	1,000

33. The most numerous of the religious denominations in this State are the Methodist and Baptist, which included more than three fourths of the population, and the Presbyterian, which counts among its adherents one sixth of the whole. The Episcopal and Roman Catholic denominations are comparatively small in numbers, neither of them having 5,000 members. The total number of churches of all denominations in 1850 was 1,016, with accommodations for 294,104 persons, and the total value of church property was $755,542.

34. Jackson, the seat of government, is situated on the right bank of Pearl River, and is the point of junction of four railroads coming in from the cardinal points, and which, when completed, will extend from the extremities of the Union in all these directions. It may thus be considered as eminently a commercial place and as an emporium of vast importance. At the present day it is one of the great cotton markets of the State. The principal public buildings are the State House, the State Lunatic Asylum, the State Penitentiary, etc. In 1850 it contained 1,881, and has now (1855) probably 3,000 inhabitants.

35. Vicksburg is a city and port of entry on the Mississippi, 408 miles above New Orleans, and 46 miles west Jackson, with which it is connected by the Southern Railroad. The site is elevated but uneven, and the city somewhat irregular in its plan, the business part being along the river and the residences on the bluff above. Vicksburg is the most commercial town between New Orleans and Memphis, and exports from 100,000 to 120,000 bales of cotton annually. Steamboats ply regularly to and from New Orleans, and both up and down steamboats stop at this port. A line of railroad, called the Vicksburg, Shreveport and Texas Railroad, extends west from Vicksburg, and forms a portion of the great Southern Pacific Railroad. Population (1840) 3,104, (1850) 3,678, and (1855) about 5,000.



STEAMBOAT WOODING.

36. Natchez, the largest city of the State, is situated on the Mississippi, 107 miles below Vicksburg. Latitude 31° 34′, and longitude 91° 24′ 42″. It is built on a bluff which rises

about 200 feet above the river, and overlooks on the one side the low cypress swamps of Louisiana, and on the other the undulating prairies of Mississippi. Natchez is the center of an extensive trade in cotton, and a heavy shipping business is transacted in the lower part of the town, called Natchez-under-the-hill. Population in 1850, 4,434, and in 1855, by local census, 8,098.

37. Intermediate between Natchez and Vicksburg is the port called Grand Gulf, two miles below the mouth of Black River. The Mississippi, by a remarkable bend, here forms what is termed the "Grand Gulf." The town enjoys a considerable trade in cotton, and supplies a wide neighborhood with merchandise, etc. Population (1850) 613, now (1855) about 800. Port Gibson, on Bayou Pierre, 28 miles from its mouth and 8 miles southeast Grand Gulf, is surrounded by a fine planting country, and is a place of considerable business. The cotton raised in the vicinity is sent down the bayou in keel boats or to Grand Gulf by railroad. Population (1850) 1,137.

38. Along the Gulf coast are the towns of Biloxi, Mississippi City, Pascagoula, Pass Christian, Pearlington, and Shieldsboro'. These towns have each more or less commerce, and serve as outlets for the extreme southern section of the State. The steamboats plying between New Orleans and Mobile call at many of them; and in the summer season the citizens of both these cities find in them cool and healthy retreats from the heat and sickness so prevalent at home.

39. The other more important places in the State are: Aberdeen, the largest and most flourishing town of the Tombigbee, and about 400 miles above Mobile. The adjacent country is highly fertile, and more than 30,000 bales of cotton are annually sent down the river from this port. Brandon, a town on the Southern Railroad, and 14 miles east Jackson. It has a large trade in cotton; Canton, a thriving town 24 miles north Jackson. It is the northern terminus of the New Orleans, Jackson, and Great Northern Railroad, and the southern terminus of the Central Railroad from Tennessee; Columbus, 28 miles below Aberdeen, on the Tombigbee River. The river is navigable at all seasons to this town, and a regular steam navigation is maintained to and from Mobile. The town is surrounded by a fertile neighborhood, and has an active cotton trade. It is connected with the Mobile and Ohio Railroad by a branch line, and a railroad is projected northeast to Decatur, Ala., a town on the Memphis and Charleston Railroad. Population (1850) 2,611; Cotton-Gin Port, a village 15 miles above Aberdeen on the Tombigbee. It is a place of considerable trade, and ships its cotton to Mobile by steamboat; Fulton, at the head of navigation of the Tombigbee River. Population (1850) 275. Small steamers ascend to this port during high water only; Grenada, a thriving village on the Yallobusha River, 112 miles north from Jackson. It is at the head of steamboat navigation, and has an active trade. The Mississippi and Tennessee Railroad from Memphis, 97 miles, here forms a junction with the Mississippi Central Railroad; Holly Springs, the largest and most flourishing town of north Mississippi. It is situated on the Central Railroad, 25 miles below the Memphis junction. Population (1855) about 3,500; Macon, a thriving village on the Mobile and Ohio Railroad, 197 miles from Mobile. To this point the railroad was completed in 1856; Marion, an important town on the same road, 139 miles from Mobile. At or near this place the line will be crossed by the Southern Railroad and connected with the Northeast and Southwest Railroad of Alabama. There is another town of the same name on the Yazoo, about 90 miles north Jackson, from which large quantities of cotton are shipped; Oxford, a flourishing town on the Central Railroad, 30 miles south of Holly Springs. It is noted for the salubrity of its climate, and as the seat of the University of Mississippi. Population about 1,200; Raymond, 24 miles from Jackson by the Southern Railroad, the center of a cotton region tributary to Vicksburg; and Woodville, a thriving town in the southwest, and connected with Bayou Sara, on the Mississippi, by the West Feliciana Railroad, 26 miles long. The country surrounding it is highly fertile, and produces large crops of cotton.

40. De Soto, the first European that visited this State, traversed it in 1542. At that time it was inhabited by numerous savage tribes, the Choctaws, Chickasaws, Natchez, etc. La Salle, descending the rivers from the Illinois country, visited the section bordering on the Mississippi in 1681; and in 1698 the first attempts at settlements were made by Iberville. His colony arrived at Ship Island in 1700, and after exploring the country built a fort at Biloxi, on the mainland. Other settlements were made on the Mississippi River at New Orleans, Natchez, etc. Fort Rosalie, on the present site of Natchez, was surprised and captured by the Indians in 1729, and for many years after great distress was caused by the hostility of all the indigenous tribes.

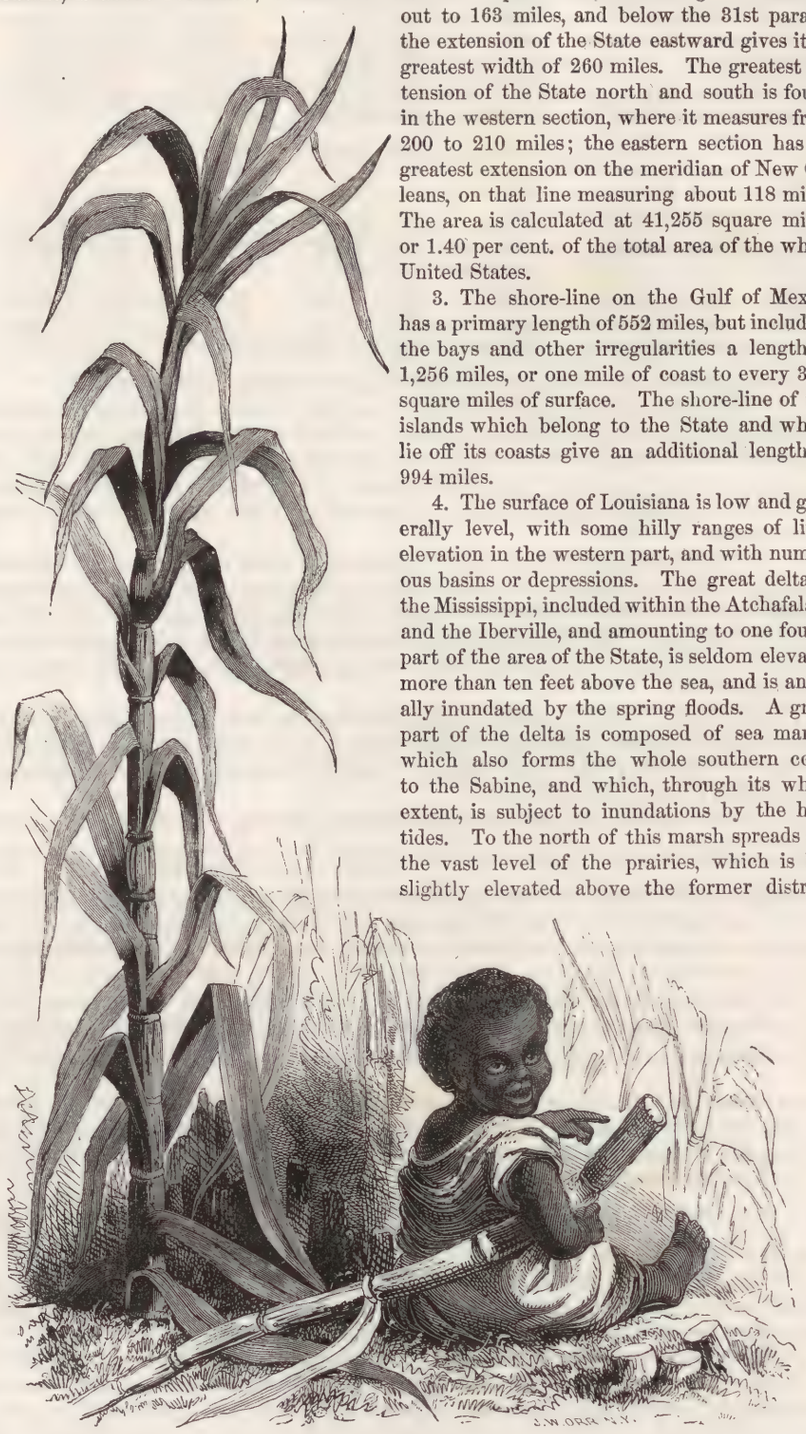
41. The war between England and France, which forms so conspicuous a page in the history of the eighteenth century, ended in 1763, France relinquishing to England all her possessions east of the Mississippi. By the treaty of 1783 the country north of the 31st parallel was included in the United States, and Florida reverted to Spain. By its charter, granted in 1732, Georgia extended westward to the Mississippi, and hence, though at that period Mississippi was *de facto* a French colony, yet on its coming into English possession it of course fell to the lot of Georgia. These extensive territories were subsequently ceded by that State to the United States, and in 1798 were erected into a territorial government, which included also the present State of Alabama.

42. In 1811 that portion of the country south of 31°, and west of Perdido River—having been wrested from Spain—was attached to this Territory and Louisiana as now partitioned. On the 1st March, 1817, an act of Congress was passed dividing the Territory, the eastern portion to form the Territory of Alabama, and on the 10th December of the same year Mississippi was admitted into the Union as a State.

STATE OF LOUISIANA.

1. Louisiana is situated between latitudes 28° 55′ and 33° north, and longitudes 88° 40′ and 94° west; and is bounded on the north by Arkansas and Mississippi, on the east by the Mississippi and Pearl rivers which divide it from the State of Mississippi, on the south by the Gulf of Mexico, and on the west by the Sabine River and Texas.

2. The width of the State east and west on the 31st parallel, between the Mississippi and the Sabine, is about 102 miles; but in the north on the parallel of Vicksburg it is widened out to 163 miles, and below the 31st parallel the extension of the State eastward gives it its greatest width of 260 miles. The greatest extension of the State north and south is found in the western section, where it measures from 200 to 210 miles; the eastern section has its greatest extension on the meridian of New Orleans, on that line measuring about 118 miles. The area is calculated at 41,255 square miles, or 1.40 per cent. of the total area of the whole United States.



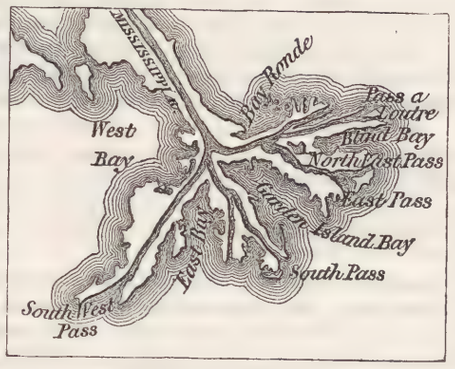
3. The shore-line on the Gulf of Mexico has a primary length of 552 miles, but including the bays and other irregularities a length of 1,256 miles, or one mile of coast to every 32.9 square miles of surface. The shore-line of the islands which belong to the State and which lie off its coasts give an additional length of 994 miles.

4. The surface of Louisiana is low and generally level, with some hilly ranges of little elevation in the western part, and with numerous basins or depressions. The great delta of the Mississippi, included within the Atchafalaya and the Iberville, and amounting to one fourth part of the area of the State, is seldom elevated more than ten feet above the sea, and is annually inundated by the spring floods. A great part of the delta is composed of sea marsh, which also forms the whole southern coast to the Sabine, and which, through its whole extent, is subject to inundations by the high tides. To the north of this marsh spreads out the vast level of the prairies, which is but slightly elevated above the former district.

The western margin of the Mississippi is also a low country, intersected by numerous small rivers, and liable to inundation. To the west and north of these is an extensive region comprising one half of the State, considerably broken, but nowhere exceeding 200 feet in elevation. It consists mostly of pine barrens covered with a vast forest of pitch pine, interspersed with oaks, elms, cypress, honey-locust, etc. The tract east of the Mississippi and north of the Iberville and the connected lakes closely resembles that last described in its surface and forest growths. It is, in fact, a part of the same upland plain whose margin on the western side is separated from the river-bed by the low inundated lands, but on the east comes up to the channel of the river, in many places forming those prominent bluffs on which stand Baton Rouge, St. Francisville, Fort Adams, Natchez, and Vicksburg.

5. The State presents but a limited geological field. It is divided into the leading grades or divisions of tertiary, diluvial, and alluvial. The tertiary, occupying about two fifths of the State, lies north of a waving line, commencing on the Sabine near the mouth of the Neches, crossing Red River 20 miles north of Alexandria, and the Ouachita 10 miles north of Harrisonburg. Its beds contain coal (aluminous brown coal), salt, iron, ochre, gypsum, and marls. The coal is inferior to that of Pittsburg, and could not compete with it in the market, but is developing for use in those portions of the State where the better coal would not bear the expense of transportation. It abounds in Sabine, Natchitoches, Caddo, and De Soto, and all the parishes thence east to the Ouachita. Salt springs are common in Natchitoches and Rapides, and have been wrought in earlier times. A saline bed, it is thought, underlies the tertiary series generally. Iron is found in great quantities in all the tertiary parishes, and is well worth the attention of those who would develop the State's resources. Ochre, gypsum, and marls, too, are found—the first in the native form, and the others co-extensive with the tertiary beds. The gypsum is very fine, equal to any known to commerce, and the marls very rich in the regions where they will be most needed.

6. The Mississippi, after having formed the boundary of the State for about 450 miles, enters its limits 350 miles from the sea, by the course of the river channel. Throughout this distance of 800 miles, its western bank is low, and flooded in high stages of the water. At the point where it enters the State, it throws off its first outlet, the Atchafalaya, and here may be said to commence the delta of the river. The Atchafalaya receives the waters of the Mississippi only in flood, and the navigation is obstructed by collections of timber, often covered with mud and weeds, which choke up its channel. The Teche and Courtableau are its principal tributaries. The Bayou Plaquemines, the next considerable outlet of the Mississippi, discharges the waters of that river into the Atchafalaya during the floods, and is the channel of trade between the country on the Atchafalaya and New Orleans. Lower down is the La Fourche outlet, which has high banks along its upper course, and admits vessels of four or five feet draft nearly to its head. On the left bank, the Bayou Manchac, a little below Baton Rouge or the last highland passed in descending the Mississippi, is the first and principal outlet: after receiving the River Amité from Mississippi, it takes the name of Iberville River.



MOUTHS OF THE MISSISSIPPI.

7. The Red River is the most important, and, indeed, with the exception of two or three navigable streams on the eastern side above Baton Rouge, the only tributary of the Mississippi within this State; for the surrounding country being lower than the river banks, its waters can not gain access to the bed. The Red River rises in the Rocky Mountains, and flowing eastwardly along the north border of Texas and into Arkansas, turns to the south, and passes into Louisiana. Soon after entering this State, its bed is choked up by an immense accumulation of fallen timber, called the "Raft," and the water is dispersed into numerous channels, and spread over wide expanses. Below Natchitoches the river divides into several arms, which again unite above Alexandria, and its waters reach the Mississippi just above the first outlet, after a course of 2,000 miles, of which 1,500 miles is open to steam navigation. The Black River, its principal tributary, is formed by the junction of the Tensaw, Ouachita, Catahoula or Little River, all considerable streams, and navigable by steamboats; but most of the country along their courses is overflowed. The Bayou du Bon Dieu is also a large and navigable river, which enters it above the Black. There are numerous lakes in this section of the State, formed chiefly by the overflowings of the rivers, which fill the low basins back of their banks.

8. In the south are the Vermillion, Mermenteau, and Calcasieu, which, rising in a tract of pine hills to the south of the Red River, and flowing through the great pastoral plains of the west, reach the low marshy strip to the Mexican Gulf, and spread into shallow lagoons. The Sabine, which partakes of the character of the last described rivers, is, however, a considerable stream, rising farther to the north in Texas, and is a navigable river beyond the Louisiana boundary, but its mouth is obstructed by a bar.

9. From the northeastern pine region, the Pearl, Tangipahoa, Chefuncta, and Iberville, large navigable rivers, flow into the lakes and passes which separate that region from the fluviatile district. The Iberville, formed by the junction of the Amité from the north and the Manchac from the west, enters the head of Lake Maurepas, which is from 10 to 12 feet deep, and connected with Lake Pontchartrain by the Pass Manchac. Lake Pontchartrain is about 40 miles long and 24 miles wide, with an average depth of 10 fathoms, but is shallow near the shores. Vessels drawing eight feet of water can, however, go up to Madisonville and to the mouth of Bayou St. John, in the rear of New Orleans: and not more than that draft can be carried through the passes or channels called the Rigolets and Chef Menteur, through which it communicates with Lake Borgne. This last is, properly speaking, no lake, but the termination of Pascagoula Sound; it approaches to within fifteen miles of New Orleans, and boats can go up the bayoux that empty into it to within a short distance of the city.

10. Louisiana is remarkably destitute of good harbors. There is, however, a good roadstead on the west side of Chandeleur Islands, called the Road of Naso, in which the heavy vessels of the English fleet lay during the expedition against New Orleans. Numerous sheets of water, improperly called lakes, lie along the coast. Of Lake Borgne mention has already been made. Barataria, Vermillion, Côte Blanche, Atchafalaya, and Simballier bays are shallow tide basins. In the interior, lakes L'Allemands and Chetimaches are large bodies of water.

11. Although Louisiana extends more than a degree farther south than any other portion of the Union, except the peninsula of Florida, its winters are longer and more severe than in the corresponding latitudes on the Atlantic borders. Thus New Orleans has the winters of Charleston, which is nearly two degrees farther north. The climate is favorable to the peach and fig tree, but the apple can not be cultivated to advantage, and the cherry is wholly unproductive.

12. The agricultural staples are cotton and sugar; rice, maize or Indian corn, and tobacco are also cultivated, but have been neglected for the first-named articles; and indigo, which was formerly a staple, has been abandoned. The prairie lands of the west afford valuable pastures. In the northwestern part of the State, between the Mississippi and Pearl rivers, much lumber is prepared for exportation, and also tar, pitch, and turpentine. The cotton plant is cultivated chiefly on the Red River and in the northeastern parts of the State. Sugar is planted as far north as the head of the delta, and it has been raised with success in the parish of Rapides.

13. In 1850 Louisiana contained 517,712 inhabitants, distributed into 54,112 families, and occupying 49,101 dwellings. This population gives 12.55 inhabitants to every square mile of surface, and is equal to 2.23 per cent. of the total population of the Union. The population of the parishes or counties was as follows:

Counties.	Population.	County Seats.	Counties.	Population.	County Seats.	Counties.	Population.	County Seats.
Ascension	10,752	Donaldsonvill'	Feliciana, W.	13,245	St. Francisvil'	Sabine	4,515	Many.
Assumption	10,588	Napoleonville.	Franklin	3,251	Winnsboro'.	St. Bernard	3,802	Ter.aux Bœufs
Avoyelles	9,326	Marksville.	Iberville	12,278	Plaquemines.	St. Charles	5,120	St. Char. C. H.
Bat. Rouge, E.	11,977	Baton Rouge.	Jackson	5,566	Vernon.	St. Helena	4,561	Greensburg.
Bat. Rouge, W.	6,270	B. Rouge C.H.	Jefferson	25,093	La Fayette.	St. James	11,098	Bringiers.
Bienville	5,539	Mt. Lebanon.	La Fayette	6,720	Vermillionvil'.	St. John Bapt.	7,317	Bonnet Carré.
Bossier	6,962	Bellevue.	La Fourche	9,532	Thibodeauxvil'.	St. Landry	22,253	Opelousas.
Caddo	8,884	Shreveport.	Livingston	3,385	Springfield.	St. Martin's	11,761	St.Martinsville
Calcasieu	3,914	Marion.	Madison	8,773	Richmond.	St. Mary's	13,697	Franklin.
Caldwell	2,815	Columbia.	Morehouse	3,913	Bastrop.	St. Tammany	6,364	Covington.
Carroll	8,789	Providence.	Natchitoches	14,228	Natchitoches.	Tensas	9,040	St. Joseph.
Catahoula	7,182	Harrisonburg.	Orleans	119,460	New Orleans.	Terre Bonne	7,724	Houma.
Claiborne	7,471	Minden.	Ouachita	5,008	Monroe.	Union	8,203	Farmersville.
Concordia	7,758	Vidalia.	Plaquemines	7,390	Pt. à la Hache.	Vermillion and	3,409	La Fayette.
De Soto	8,023	Mansfield.	Point Coupee	11,339	Morgansia.	Washington	3,408	Franklinton.
Feliciana, East	13,598	Clinton.	Rapides	16,561	Alexandria.			

—of the total population 255,491 (49.35 per cent.) were white persons—141,243 males and 114,248 females; 17,462 (3.37 per cent.) free colored persons—7,479 males and 9,983 females, and 244,809 (47.28 per cent.) slaves—125,874 males and 118,935 females; and of the free population 205,921 were Americans, of which number 145,474 were born in this State; 66,413 were foreigners, and 619 of unascertained origin. In other States of the Union there were 14,779 natives of Louisiana.

14. The population of Louisiana amounted in 1810 to 76,556; in 1820 to 153,407; in 1830 to 215,739; in 1840 to 352,411, and in 1850 (as above) to 517,762. In 1855 the total was reported at 587,774, of which 301,764 were whites, 23,843 free colored, and 263,167 slaves.

15. The census of 1850 returns 77,168 free male persons over 15 years of age as employed in industrial occupations. Of this number 32,879 were engaged in commerce, trade, manufactures, mechanic arts, and mining; 18,639 in agriculture; 15,264 in labor not agricultural; 45 in the army; 4,263 in sea and river navigation; 1,827 in law, medicine, and divinity; 2,444 in other pursuits requiring education; 811 in government civil service; 508 in domestic service, and 488 in occupations not specified.


SOUTHERN PLANTATION.

16. Louisiana is eminently an agricultural State, the chief employment of its planters being the production of cotton and sugar. Manufactures other than those dependent on the preparation of these agricultural staples are carried on only in New Orleans, and the commerce for which the State has the credit is confined almost entirely to the same city, which is not only the commercial metropolis of Louisiana, but also the commercial depôt of the whole lower portion of the Mississippi valley.

17. Louisiana in 1850 contained 13,422 farms and plantations, in which were inclosed 4,989,043 (improved 1,590,025 and unimproved 3,399,018) acres of land, or about a fifth of the whole area of the State. The value of these was estimated at $75,814,398, and the value of implements and machinery thereon at $11,576,938.*

18. The quantity of livestock in the State in 1840 and 1850 comparatively is enumerated in the following table:

	horses, asses, etc.,	neat cattle,	sheep,	swine,
1840	99,888	381,248	98,072	323,220
1850	184,363	575,342	110,333	597,301

—in all valued in 1850 at $11,152,275; and the value of animals slaughtered in the year had been $1,458,990. The number of asses and mules in the State in 1850 was 44,849, and among the neat cattle of that year were included 105,576 milch cows and 54,968 working oxen. The products of the dairy in 1850 consisted of 683,069 pounds of butter and 1,957 pounds of cheese; and the wheat crop in 1840 amounted to 49,283 and in 1850 to 109,897 pounds.

19. The grain crop for the two years amounted to the following number of bushels:

	wheat,	rye,	oats,	Indian corn,	barley,	buckwheat,
1840	60	1,812	107,353	5,952,912	(*nil*)	(*nil*)
1850	417	475	89,637	10,266,373	(*nil*)	3

—making in 1840 a total of 6,061,137 bushels, and in 1850 a total of $10,356,905 bushels. The potato crop in 1840 amounted to 834,341, and in 1850 to 1,524,085 (including Irish 95,632) bushels; that of peas and beans amounted in 1850 to 161,732 bushels; and that of hay amounted in 1840 to 24,651, and in 1850 to 25,752 tons.

20. The Southern staple crop (pounds) produced in Louisiana in 1840 and 1850 amounted to the annexed notation of quantities:

	cotton,	sugar,	rice (clear),	tobacco,
1840	152,555,363	119,947,720	3,604,534	119,824
1850	71,494,800	226,001,255	(rough), 5,425,349	26,878

—and in 1850, molasses, 10,931,177 gallons.

21. And among the miscellaneous products of 1850 the following are noted: beeswax

* In 1855 the land cultivated in cane amounted to 248,195 acres, which produced 233,466 hogsheads of sugar and 1,285,888 barrels of molasses; cultivated in cotton to 616,788 acres, which produced 368,077 bales; cultivated in corn to 643,391 acres, which produced 10,717,080 bushels; and cultivated in rice to 3,177, which produced 31,449 barrels.

and honey, 96,701 pounds; wine, 15 gallons, etc. The value of the products of market gardens was $148,329, and of orchard products, $22,359.

22. The total value of agricultural products in 1840 amounted to $17,976,017, and in 1850 to $15,210,299.

23. In 1850 Louisiana contained 1,017 establishments for manufactures, mining, and the mechanic arts, and employed in these industries a collective capital of $5,318,074. The raw material consumed in the year was valued at $2,958,988, and the number of hands was 6,437, the cost of whose labor amounted to $2,086,212. The total value of the goods produced was $7,320,948. The value of goods produced in families was $139,232.

24. New Orleans is the chief port of Louisiana engaged in the foreign trade. In the years ending 30th June, 1850 and 1855, the total value of exports from the State, consisting chiefly of cotton, tobacco, provisions, breadstuffs, etc., amounted to $38,105,350 and $55,367,962, and in the same years the imports were valued at $10,760,499 and $12,900,821. The shipping cleared amounted in the years respectively to 369,937 and 604,402 tons, and the shipping entered to 350,853 and 445,302 tons. In 1850 the shipping owned in the State amounted to (registered 83,668 and steam 151,614) 250,089 tons, and in 1855 to (registered 114,398 and steam 71,544) 204,149 tons; and the shipping built in 1850 to 1,592 tons, and in 1855 to 872 tons.

25. The progress of the commerce of Louisiana for the ten years ending with 1854–5 has been as follows:

Years.	Value of Exports.	Value of Imports.	Shipping (tons). Cleared.	Shipping (tons). Entered.	Tonnage owned in State. Registered.	Tonnage owned in State. Steam.	Tonnage owned in State. Total.	Tonnage Built.
1846	$31,275,704	$7,223,090	—	—	—	—	—	—
1847	41,051,633	9,222,969	—	—	—	—	—	—
1848	40,971,361	9,380,439	—	—	—	—	—	—
1849	37,611,667	10,050,697	487,690	425,449	81,898	146,413	241,497	1,755
1850	38,105,350	10,760,499	369,937	350,853	83,668	151,614	250,089	1,592
1851	54,413,953	12,528,460	421,566	328,932	86,625	157,191	253,285	2,327
1852	49,058,885	12,057,724	544,482	424,281	81,501	171,502	268,171	1,284
1853	68,292,658	13,630,686	630,820	512,812	84,099	55,414	156,274	1,346
1854	60,931,852	14,422,154	603,755	499,227	103,996	66,093	187,074	1,508
1855	55,367,962	12,900,821	604,402	445,302	114,398	71,544	204,149	872

26. But to comprehend the magnitude of the commerce of this State, or rather of New Orleans, its vast trade with the interior, and its equally vast coasting trade, must be summed up. In 1855 there was received from the interior merchandise to the value of $117,106,823, viz., cotton 1,284,768 bales, valued at $51,390,720; sugar 346,653 hogsheads, $18,025,020; tobacco 53,348 hogsheads, $7,215,195; flour 673,111 barrels, $5,553,166; pork 276,393 barrels, $4,980,557; lard 144,036 barrels and 98,326 kegs, $4,092,530; molasses 23,000,000 gallons, $4,255,000; bacon (in various packages), $4,993,154; corn 1,110,446 sacks, $2,402,440; whisky 108,854 barrels, $1,306,248; and among other principal articles lead, wheat, bagging, beef, hemp, bale rope, butter, hay, hides, coal, potatoes, staves, tallow, feathers, oats, etc., etc.; and of these were exported coastwise, cotton, 1,270,264 bales; tobacco, 64,100 hogsheads; sugar, 129,487 hogsheads and 10,466 barrels; molasses, 266 hogsheads and 257,444 barrels; flour, 345,743 barrels; pork, 168,311 barrels; bacon, 43,312 hogsheads; lard, 791,635 kegs; beef, 32,963 barrels; lead, 53,326 pigs; whisky, 41,700 barrels, corn, 520,937 sacks, etc. The return trade coastwise and into the interior is also very extensive, a large portion of the interior receiving in this way its groceries, clothing, and other necessities. These statistics in connection with the record of the foreign trade show New Orleans to be a first-class port, and one of the greatest depôts of commerce in the world.

27. In works of internal improvement, Louisiana is still deficient. The people have too long depended on their magnificent water system for the facilities of trade. Railroads however have been constructed in several directions—toward the north and northwest from New Orleans, and it has also several local railroads. A line is also being built from Vicksburg across the State into Texas where it will connect with the Southern Pacific Railroad, and another line is projected farther south, to connect on the frontier with a road from Houston, so as to furnish a direct line between New Orleans and that city. Louisiana has likewise several canals, which unite the navigation of its different waters.

28. In December, 1850, there were twenty-five and in 1855 nineteen banks in Louisiana, with an aggregate capital at the two periods amounting to $12,370,390 and $19,027,728. Their liabilities for circulation amounted to $5,059,229 and $7,222,614; for deposits to $8,464,389 and $14,147,470; for dues to other banks to $1,384,232 and $1,687,532, and for other accounts (1855) to $2,301,747. The assets in the years respectively consisted of—loans and discounts, $19,309,108 and $27,500,348; real estate, $2,255,169 and $2,341,335; other investments, $3,242,149 and $4,824,812; due by other banks, $2,225,896 and $6,099,850, and specie, $5,716,001 and $8,191,625.

29. The government is based on the constitution of 1845, which superseded that of 1812. The right to vote is granted to every free white male 21 years of age, who for two years has been a citizen of the United States, and a resident of the State for two years, and of the parish for one year. The general election is held on the first Monday in November.

30. The legislature consists of a senate of 32 members, elected for four years, one half biennially, and a house of representatives of not less than 70 nor more than 100 (now 88) members, elected for two years. Senators must be 27 and representatives 21 years of age, and be otherwise qualified as to citizenship and residence. Sessions are annual, and commence on the second Monday in January, but are not to continue longer than 60 days.

31. The governor and lieutenant-governor are elected by a plurality of votes, and for four years; must be 35 years of age, citizens of the United States, and have resided in the State for 15 years. The governor is ineligible for re-election for the succeeding term. The secretary of state is elected by the people for four years, and the state treasurer for two years.

32. The judiciary is exercised by a supreme court and 19 district courts. The judges of the supreme court are elected for ten years—the chief-justice by the people at large, and four associates by the people in districts. This court sits at New Orleans from the first Monday in November to the end of June, and has chiefly appellate jurisdiction. Judges of district courts are elected by the people of their several districts, as are also attorneys, clerks, etc. The attorney-general is elected by the people at large.

33. The finances of the State are in a very flourishing condition. The receipts into the treasury for the year ending 31st December, 1855, amounted to $1,577,096, and with a balance (743,398) remaining from last year, the total resources were $2,320,494. The disbursements for the same year amounted to $1,683,098. The sources of income are direct taxes, sales of public lands, and licenses of trades and professions. The principal expenditures are on account of public debt, government schools, charities, etc. The State debt in 1855 amounted to $12,459,349, of which $3,839,222 was called the State debt proper, $8,421,888 the bank debt, and $198,240 the municipal debt. Nearly a million and a half of State bonds have been issued to railroad companies, in addition to the sum above given. The valuation of taxable property in the State in 1850 was $220,165,172, and in 1855, $299,996,176.

34. The principal institutions supported in part or wholly by the State are the Louisiana Penitentiary at Baton Rouge, the Deaf and Dumb and Blind Asylum also at the capital, the Insane Asylum at Jackson, and the Charity Hospital at New Orleans.

35. The number of scholars registered as attending school in 1850 was 34,057, or one to every 8.01 of the whole free population. The condition of the schools on the 1st June of the same year was as follows:

Classification.	Number.	Teachers.	Scholars.	Income.
Primary and public schools	664	822	25,046	$349,679
Academies and private schools	143	354	5,328	193,077
Universities and colleges	6	41	629	85,750

—making a total of 813 schools, 1,217 teachers, and 31,003 scholars, and an annual income of $628,506. The number of free persons over 20 years of age who could not read and write was 24,610, of which number 18,339 were Americans and 6,271 foreigners, and 21,221 were white and 3,389 free colored persons. In 1855 the average attendance at public schools was estimated at 36,000. The school fund in the same year amounted to $461,269, and the seminary fund to $151,269, which are invested with the State and form part of the debt proper. The yearly sum of $250,000, raised by a mill-tax on property, and a poll-tax of $1 on each white male, is appropriated to the support of free schools.

36. The collegiate and professional schools of the State are as follows:

Institutions.	Location.	Founded.	Professors.	Students.	Libraries.
St. Charles College	Coteau Grand	1838	26	85	6,000
Baton Rouge College	Baton Rouge	1838	4	—	3,000
Centenary College	Jackson	1839	7	—	5,500
Franklin College	Opelousas	1839	4	—	2,000
University of Louisiana	New Orleans	1849	7	112	10,000
College of St. Peter and St. Paul	Baton Rouge	1850	6	47	4,000
Law Depart. Univer. of Louisiana	New Orleans	1849	3	57	1,000
Med. Depart. " "	New Orleans	1836	8	222	—

37. The Roman Catholic and Methodist are the most numerous among the religious denominations, each claiming about one third the whole population, and next in point of numbers the Baptist, Presbyterian, and Episcopal denominations. The total number of churches in the State in 1850 was 306, with accommodation for 109,615 persons, and the total value of church property was estimated at $1,782,470.

38. Baton Rouge, capital of the State, is built on the east bank of the Mississippi, 140 miles above New Orleans. Latitude 30° 28′, and longitude 85° 11′. It occupies the first bluff which occurs in the lower river, which is elevated some 25 or 30 feet above the highest flood-mark. It is eminently a healthy locality, and commands a fine view of the surrounding country. The city contains an elegant State House, a college, an arsenal and barracks belonging to the United States, and the State Prison. The seat of government was located here in 1847. The Baton Rouge, Gros-Tête and Opelousas Railroad, when completed, will open to it a wide commercial field, and by its connection with the New Orleans, Opelousas and Great Western Railroad, make it one of the Mississippi termini of the Southern Pacific Railroad. Regular steamboat communication is maintained with New Orleans and other river ports. Population (1850) 3,905.

39. New Orleans, the great entrepôt not only of the trade of Louisiana, but also of the whole Mississippi valley, is built on a low site between the Mississippi River and Lake Pontchartrain, 100 miles from the Gulf of Mexico, and 1,952 miles below the Falls of St. Anthony. Latitude (City Hall) 29° 57′ 30″, and longitude 90° 07′.

40. The city is built around a bend of the river, and on this account has been familiarly called the "Crescent City." The site inclines gently from the Mississippi toward the marshes in the rear, and is somewhat below the usual spring freshets, to protect it from which levees have been built, extending 160 miles above and more than 40 miles below it. This embankment now forms a delightful promenade, and in front of the city a splendid quay, on which immense warehouses have been built.



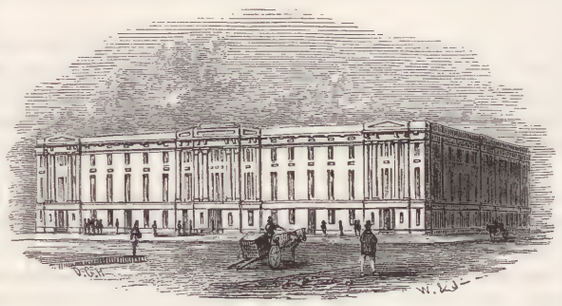
VICINITY OF NEW ORLEANS.

41. The city proper, as laid out by the French, is 1,320 yards long and 700 yards wide, in the form of a parallelogram. Above and below and in the rear of this are what were originally faubourgs or suburbs, but which are now within the municipal limits, as is now also Lafayette, immediately above the old city. In 1852 the whole, extending about 7 miles along the river and back from 4 to 5 miles, to Lake Pontchartrain, was consolidated.

42. The streets are generally wide, and intersect at right angles; the principal is Canal Street, 100 feet wide, and extending throughout its entire length, and having a grass-plat, 25 feet wide, in its middle. Most of the buildings are of brick, and are usually low, except in the business portion, where many of them are five and six stories high. The suburban residences are many of them, particularly in Lafayette, beautifully planned and ornamented with garden plots and shrubberies. In different parts of the city are several public squares, among which may be named Jackson Square, formerly Place d'Armes, occupying the river front of the old town or First District, a beautiful retreat, ornamented by shell walks, statuettes, shrubberies, etc., and Lafayette Square, in the Second District, finely laid out and adorned with shade trees. Congo Square, in the rear of the city, is also a handsome inclosure.

43. The public buildings of note are the Custom House, the largest edifice in the Union, built of Quincy granite; the Branch Mint, the Municipal Hall, the Odd-Fellows Hall, and the Merchants' Exchange, which latter contains also the City Post Office. Many of the churches

are large and costly structures. The church of St. Louis is a splendid edifice. In all, the city contains about 40 church edifices, of which 12 belong to the Roman Catholics, 7 to the Episcopalians, 6 to the Presbyterians, 3 to the Jews, and the remainder to various Protestant sects. There are also about 40 schools in the city, which have an average attendance of from 16,000 to 18,000 scholars. The public moneys appropriated to school purposes amount to more than $200,000 a year. Besides the public schools and academies, New Orleans has several collegiate and literary institutions, at the head of which is the University.



CUSTOM HOUSE.

44. The press of New Orleans is highly distinguished, and consists of about 10 daily newspapers and about the same number issued weekly and at other periods. Several are published in the French and one or two in the Spanish languages. De Bow's Review, issued monthly, is one of the most valued commercial publications in the Union, and represents the Southern interest generally. The benevolent institutions of the city are extensive, well supported, and liberally conducted. The Charity Hospital is undoubtedly the first medical and surgical institution in America. It is a magnificent structure, inclosed in beautiful grounds, and capable of accommodating at one time a thousand patients, and about 20,000 are annually received. This institution is the refuge alike of the citizen and stranger, and is attended chiefly by those exemplary women—the Sisters of Charity—whose deeds reflect so great an honor on the Catholic Church.

45. New Orleans is also distinguished for its hotels and places of public amusement. The St. Charles, the Orleans, and American theaters will accommodate an aggregate of 4,500 persons. Among the hotels the principal are the St. Charles, Exchange, City Exchange, Verandah, etc. The city is supplied with water from the Mississippi, which is raised by machinery into a reservoir, and thence distributed through iron pipes.

46. New Orleans as a commercial city ranks next to New York and Boston in the scale of importance. It is the great outlet of the products of the valley in which it is situated, and gathers tribute from all the ports from St. Paul, nearly 2,000 miles north, from the headwaters of the Ohio, Missouri, Arkansas, and Red rivers, and from the great lakes. More than 20,000 miles of navigation are tributary to it; and the forest, the mine, and the field are constantly laying their wealth into its lap. Among the great staples landed here are the cotton, sugar, and tobacco of the South, and the lead, corn, and provisions of the North. These are duly exported to foreign countries and to the ports of the Atlantic. The amount of this commerce is so vast as to be almost beyond calculation. The receipts from the interior since the years 1847–8 were:

1847–48	$79,779,151	1849–50	$96,817,873	1851–52	$108,051,708	1853–54	$115,336,798
1848–49	81,989,692	1850–51	106,924,083	1852–53	134,233,735	1854 55	117,106,823

—and besides this the amounts of receipt by Lake Pontchartrain and the new canal are large. The exports to foreign countries in 1850 amounted to $38,105,350, and in 1855 to $55,367,962; and the imports in the same years to $10,760,499 and $12,900,821 respectively. The increase between the two periods corresponds nearly to the increase of the population and wealth of the great valley, and establishes the fact that, in the face of the railroad competition of the North Atlantic States, New Orleans still retains its pre-eminence as a great and permanent port.

47. The manufactures of New Orleans are not extensive, but of late years their development has not been slow. It already possesses, either within its own limits or in its suburbs, furnaces, machine-shops, distilleries, sugar-refineries, lumber-yards, sawmills, tobacco factories, etc., many of which are large, and besides these there are all the handicrafts.

48. The retail trade of the city is extravagantly provided for. Its stores and sales-rooms are magnificent and their patronage beyond precedent. The dress, habits, and customs of the inhabitants require this lavish exhibition of merchandise, and they willingly support it at an immense cost to individual revenue. An immense trade is also supported by the crowds which in the winter season flock to the city from the country, including wealthy planters and their families, and Northern people in search of a fair climate and a refuge from the inclemency of their colder homes. At this season the city is resplendent with fashion and luxury. In the summer and fall New Orleans is subject to visitations of the yellow fever, frequently in the form of an epidemic, but there are years of intermission, when few or no cases are reported.

49. Perhaps no city of the Union is so diversived in its population. The sunny isles of the Antilles, Mexico, Central America, France and Spain and the other states of Europe, and the sister States northward, have each representatives among its inhabitants. The colored races, however, preponderate, and, slave and free, make up at least one half of the whole. Of the white races, Americans, French, and Spanish constitute the larger portion, and in these classes are found what may be denominated the aristocracy. The Irish are also very numerous, but the English and Scotch are relatively few in number, and are chiefly connected with the foreign commerce as merchants or factors. This admixture of races is embarrassing; but this circumstance has also its advantages. It elicits much that is cosmopolitan. But the vices and virtues of such a community stand out in relief, and Sunday bull-baiting, gaming, and balls contrast harshly with the exercises appropriate to that day of rest.

50. Compared with the great Northern cities, New Orleans has done little toward providing for its commerce due facilities. Many great works, however, have been undertaken which, when completed, will give it excellent trade routes to the interior; among them the most conspicuous are the New Orleans, Jackson and Great Northern and the New Orleans, Opelousas and Great Western railroads; the first, with its connections, will open to it a way to the great cities of the lakes, the Ohio, etc., and the latter will give it access to Texas and the Pacific. Both these works are partially in use. Otherwise New Orleans has several local railroads, which connect it with Lake Pontchartrain, etc., and the same connection is also made through the new canal.

51. Opposite to New Orleans, and connecting with it by a ferry, is the town of Algiers, the principal workshop of the city. Here are several extensive ship-yards, and numerous artisans engaged in building and repairing vessels. At Macdonough, above and adjoining it, is the United States Marine Hospital, a splendid building, used for the purpose its name designates. Belleville lies below and also adjoins Algiers, and has many fine residences. Many of the seats in the suburbs of the city are surrounded with spacious gardens, splendidly ornamented with orange, lemon, magnolia, and other trees.

52. The history of New Orleans in its early epochs is that of the whole French settlements in Lower Louisiana. The city was founded in 1717, and named after the Duc d'Orleans, then regent of France, but the site was abandoned soon after, and not settled again until 1722. Soon after this it began to prosper, and constant accessions were made to the population by the arrival of immigrants.

53. By the treaty of 1763, New Orleans, with all Louisiana west of the Mississippi, was transferred to Spain by treaty. The population now numbered 3,190. The transfer greatly provoked the French inhabitants, and some opposition was made, but in the end the Spanish laws were gradually introduced, and, by a beneficent administration, the city so flourished under the new government, that the population in 1785 had increased to 4,980—a great movement in those days. In 1792 the city was divided into four wards, and its police greatly improved, and two years later the first newspaper was published.

54. The country was prosperous at the commencement of the French Revolution; but in 1801, Spain having fallen into the power of France, it was retroceded to that nation, and in 1803 was sold to the United States by the French. The population was now over 8,000. In 1804 New Orleans was made a port of entry, and in 1805 was incorporated. Early in 1812 the first steamboat arrived from the Ohio! The war of 1812–15 now broke out, and the British made a descent on the city, and on the 8th of January, 1815, the greatest battle of the war was fought—the result is known to every schoolboy.

55. The modern progress of the city now commenced; the settlement of the valley of the Mississippi, and the consequent trade with the only port of its outlet increased rapidly and proportionally. The increase is still going on, and will raise New Orleans to the first rank among commercial cities. It is now the great depôt of the export trade of the valley; and when its railroad to the North is completed, much of the import trade, now having its course from the northern Atlantic coast, will certainly make New Orleans its entrepôt. The difficult up-navigation of the river, even by steamboats, has hitherto been the great drawback.

56. Population in 1810, 17,242; in 1820, 27,178; in 1830, 49,826; in 1840, 102,193; and in 1850, 119,461. The population of Lafayette in 1840 was 3,207, and in 1850, 14,190.

57. The other most important places within the State are—Alexandria, on the Red River, 150 miles from its junction with the Mississippi, and the shipping port of a fine cotton region, with 672 inhabitants; Barataria, 1,176; Bayou Sara, on the Mississippi, opposite Point Coupée, 532; Carrollton, above New Orleans, 1,470; Franklin, on the Bayou Teché, 891; Gretna, adjoining Algiers, 717; Harrisonburg, on the Ouachita River, 326; Homer, the capital of Claiborne County, 418; Minden, in the same county, 533; Monroe, on the Ouachita, 435; Natchitoches, on the Red River, a place of considerable trade, 1,261; New Iberia, on the Bayou Teché, 306; St. Francisville, on the Bayou Sara, a mile from the Mississippi, and the terminus of the West Feliciana Railroad, 405; St. Martinsville, on the Bayou Teché, 652; Shreveport, on the Red River, about 30 miles below the "great raft," a place of great trade, 1,728; and Thibodeauxville, on the Bayou la Fourche, 1,242. In this connection may also be mentioned the following—Madisonville, near the north shore of Lake Pontchartrain; Opelousas, on the west of Bayou Teché; Donaldsonville, at the head of Bayou la Fourche, and formerly the capital; Plaquemines, at the head of the bayou so called, etc.

58. The State of Louisiana embraces the southern part of the extensive Louisiana territory which was purchased by the United States from France, in 1803, for 60,000,000 francs. The earliest settlements within the present State were, that of Iberville, begun in 1699, and that of New Orleans, begun in 1717. By treaty of 1762 with Spain, and of 1763 with Great Britain, France ceded to these powers all of her American territories. In 1800 Spain reconveyed her portion of these provinces to France. The United States received them in 1803, and established therefrom two territories, of which the "Territory of Orleans" comprised the present State of Louisiana. On February 11th, 1811, Congress passed an act enabling the inhabitants of the Territory to form a constitution and State government; and upon compliance therewith Louisiana was admitted into the Union, April 8th, 1812.

STATE OF ARKANSAS.



1. Arkansas is situated between latitudes 33° and 36° 30′ north, and longitudes 89° 40′ and 94° 42′ west; and is bounded on the north by Missouri, on the east by the St. Francis and Mississippi rivers—which divide it from Missouri, Tennessee, and Mississippi, on the south by Louisiana, and on the west by Texas and the Indian Territory.

2. The width of the State, east and west, varies from 148 miles on the south line to 240 miles on the 36th parallel. The general extent, north and south, is 242 miles. The area is computed at 52,198 square miles, or 1.78 per cent. of the total surface of the Union.

3. The surface of Arkansas presents great variations in its physical configuration. Along the Mississippi, which demarks its eastern boundary, and for thirty to a hundred miles inland, the country is low and widely interspersed with lakes and swamps, and with inconsiderable

exceptions is annually overflowed by the floods of the Mississippi, Arkansas, and St. Francis. Farther west the surface rises, and toward the center of the State becomes moderately hilly, and still farther west rises into the Ozark Mountains, and beyond these the country spreads out into elevated and gradually rising plains, which terminate only with the Rocky Mountains.

4. Of the highlands that have been called the Ozark or Masserne Mountains, our knowledge is very imperfect. They consist of several low ridges, irregular in their direction, and seldom rising to an elevation of more than 1,500 or 2,000 feet They appear to be composed chiefly of secondary rocks, limestones, clay slates, and sandstones, traversed in many places by dykes of greenstone, granite, and sienite. Those portions of this region which have been examined are found to be rich in minerals, of which iron and lead, copper and zinc, exist in great profusion. Coal and salt also abound; and there are valuable thermal and sulphurous springs. The hot springs of the Washita are remarkable for their high temperature, but are not powerfully impregnated with any mineral substances; they burst forth in great numbers and volume in a small valley lying between two lofty ridges of sandstone, and vary in temperature from 105° to 151°. There are said to be more than seventy of these springs, several rising from the bed of a small stream which flows through the valley, and others issuing from the bounding ridges, at various heights. The Washita oilstones or novaculites, so much esteemed, are found in this region.

5. The Mississippi bathes the eastern front of Arkansas for more than 350 miles by its windings, but affords no sites suitable for large towns in the present condition of the country. The Arkansas, one of the largest tributaries of the Mississippi (but having no large tributaries of its own within this State), traverses the whole breadth of the country through its center, by a very tortuous course of about 1,500 miles, and is navigable during the greater part of the year far above its western limits. The Red River flows through the southwestern corner, which is thus rendered accessible to steamboats. All the other rivers, some of which are of great magnitude, empty themselves into these three, affording navigable facilities to almost every quarter of the State.

6. The St. Francis is a large and full river, rising in the eastern highlands of Missouri. Its channel, however, is much obstructed by numerous rafts or jams of fallen trees, and above and below the northern boundary its waters are dispersed in such a manner as to render the navigation intricate and difficult. The "Spread," as it is called by the inhabitants, extends for the space of about 50 miles, with a width in some parts of 20 miles, and is attributed to the earthquake of 1811, at which time a large tract of country sunk considerably below its former level, and the waters of the rivers were dissipated in numerous lakes and branches.

7. The White River has its sources in the northwestern part of the State, and passes into Missouri, whence it soon returns, reaching the Mississippi in a general southeasterly course. Its length is not less than 600 miles; and although at present it is choked up in many places by accumulations of drift-wood, steamboats ascend it as far as Batesville, 260 miles, and on the removal of these obstructions will be able to ascend it 200 miles farther. The White River receives several large tributaries from Missouri, of which the Big Black, a navigable stream, is the principal; the Caché and Little Red River have their courses wholly within this State.

8. The Washita, a noble river running through a fertile and beautiful region, drains nearly the whole southern part of the State; rising near the western border, it flows nearly parallel with the White River and the Arkansas, first east and then southeast, and is navigable upward of 350 miles from its mouth. The Little Missouri, the Saline, the Bayou Bartholomew, the Bayou Bœuff, and the Bayou Maçon are its principal tributaries.

9. The climate of Arkansas is temperate, but subject to sudden and frequent variations; and the whole country is exposed to the effect of the cold north winds which render the central portions of the United States so cheerless in the winter season. The same winds traverse southward to the equator, and are known in the Gulf of Mexico as the "northers," the terror of seamen navigating that sea. Yet in the spring, summer, and fall the weather is highly propitious to agriculture, and here cotton, Indian corn, and, in fact, all the great staples of the country find the climate highly congenial. The soils vary, from the most sterile to the most fertile, and on the margins of all the rivers the productiveness is unbounded. On most of these the soil is a rich alluvion deposited from the washings of the flood, deep and wide, covering millions of acres. Back from the rivers the soil becomes more and more sterile, and in many parts it is unfit for culture, either from scarcity of water or from metallic impregnation. The principal growths are pines, cypresses, sycamores, and oaks, according to the formation, and on the prairies, which are extensive, is that rank grass for which this description of land is so famous. On the whole, Arkansas has many advantages for agriculture, and it has many disadvantages; but where the latter exist, they are fully compensated for by the abundance of its minerals.

10. In 1850 Arkansas contained 209,897 inhabitants, distributed into 28,416 families and occupying 28,252 dwellings. This population gives 4.02 inhabitants to every square mile, or 0.91 per cent. of the whole population of the Union. The population of the counties was as follows:

Counties.	Population.	County Seats.	Counties.	Population.	County Seats.	Counties.	Population.	County Seats.
Arkansas	3,245	Arkansas Post.	Hot Springs	3,213	Rockport.	Pike	1,861	Murfreesboro'.
Ashley	2,058	Hamburg.	Independence	3,086	Batesville.	Poinsett	2,308	Bolivar.
Benton	3,710	Bentonville.	Izard	5,884	Mt. Olive.	Polk	1,263	Dallas.
Bradley	3,829	Warren.	Jackson	5,227	Elizabeth.	Pope	4,710	Dover.
Carroll	4,614	Carrollton.	Jefferson	5,220	Pine Bluff.	Prairie	2,097	Brownville.
Chicot	5,115	Columbia.	Johnson	5,274	Clarksville.	Pulaski	5,657	Little Rock.
Clark	4,070	Arkadelphia.	Lafayette	4,823	Lewisville.	Randolph	3,275	Pocahontas.
Conway	3,583	Springfield.	Lawrence	2,308	Smithville.	St. Francis	4,479	MountVernon.
Crawford	7,960	Van Buren.	Madison	2,368	Huntsville.	Saline	3,908	Benton.
Crittenden	2,648	Marion.	Marion	2,049	Yellville.	Scott	3,083	Waldron.
Dallas	6,877	Princeton.	Mississippi	1,958	Oceola.	Searcy	1,979	Lebanon.
Desha	2,911	Napoleon.	Monroe	1,758	Lawrenceville.	Sevier	4,240	Paraclifta.
Drew	3,276	Monticello.	Montgomery	1,958	Mount Ida.	Union	10,298	El Dorado.
Franklin	3,972	Ozark.	Newton	1,758	Jasper.	Van Buren	2,864	Clinton.
Fulton	1,819	Salem.	Ouachita	9,591	Camden.	Washington	9,970	Fayetteville.
Greene	2,593	Gainesville.	Perry	978	Perryville.	White	2,619	Searcy.
Hempstead	7,672	Washington.	Phillips	6,935	Helena.	Yell	3,841	Danville.

—of the total population 162,189 (77.27 per cent.) were white persons—85,874 males and 76,315 females, 608 (0.29 per cent.) free colored persons—314 males and 294 females, and 47,100 (22.44 per cent.) slaves—23,658 males and 23,442 females; and of the free population 160,345 (98.49 per cent.) were Americans (of which 63,206 were born in this State), 1,628 were foreigners, and 824 were of unknown origin. In other States of the Union 10,916 natives of Arkansas were resident. The population of Arkansas in 1820 amounted to 14,273; in 1830, to 30,388; in 1840, to 97,574; and in 1850 (as above), to 209,897. In 1854 a State census returned 253,117 inhabitants, of whom 199,224 were whites, 614 free colored persons, and 60,279 slaves.

11. The employments of 40,785 free male persons over 15 years of age in 1850 were as follows: in commerce, trade, manufactures, mechanic arts, and mining, 4,296; in agriculture, 28,942; in labor not agricultural, 5,684; in the army, 33; in river navigation, 106; in law, medicine, and divinity, 911; in other pursuits requiring education, 676; in government civil service, 110; and in other pursuits not specified, 27.

12. Thus agriculture employs three fourths of the population of the State. Manufactures are insignificant, nor has mining as yet become an element in its industrial economy. Every kind of industry, indeed, is still in its first period excepting agriculture which furnishes to commerce one of its chief materials in its cotton. The rapid advance of this State in population and wealth, however, augurs well for its future, and with natural resources equal to the most prosperous regions of the Union, time and force alone are required for Arkansas to assert its true position among its confederates.

13. In 1850 Arkansas contained 17,758 farms and plantations covering 2,598,214 (improved 781,530* and unimproved 1,816,684) acres, or about an eighth of the whole surface; and their value was estimated at $15,265,245. The value of implements and machinery in use was $1,601,298.

14. The livestock of Arkansas in 1840 and 1850 amounted in the years severally to the following numbers:

1840	horses, asses, etc.,	51,472	neat cattle,	188,786	sheep,	42,151	swine,	393,058
1850	" "	71,756	"	292,710	"	91,256	"	886,727

—the stock of 1850 being valued at $6,647,969; and the value of animals slaughtered in the year was $1,163,313. Animal products in 1850—butter 1,854,239 pounds, and cheese 30,088 pounds; and wool in 1840 and 1850 respectively 64,943 and 182,595 pounds.

15. The grain crops (in bushels) were as follows:

1840	wheat,	105,878	rye,	6,219	oats,	189,553	Indian corn,	4,846,682	barley,	760	buckwheat,	88
1850	"	199,689	"	8,047	"	656,183	"	8,893,989	"	177	"	175

—being a total in 1840 of 5,149,130, and in 1850 of 9,758,160 bushels. The potato crop in 1840 amounted to 293,608, and in 1850 to 981,981, of which 193,832 were Irish and 788,149 sweet potatoes. The crop of peas and beans in 1850 was 285,738 bushels, and of hay 3,976 tons.

16. The Southern crops (pounds) grown in this State were as follows:

1840	cotton,	6,028,642	rice (clear),	5,454	tobacco,	148,439
1850	"	25,137,600	" (rough),	63,179	"	218,936

—and among the miscellaneous farm products in 1850 are noted—beeswax and honey 192,338 pounds, flax 12,291 pounds, hemp 30 tons, wine 35 gallons. The value of market-garden products was $17,150, and of orchard products $40,141.

17. The total value of agricultural products raised in this State in 1840 was $4,973,655, and in 1850, $9,676,577.

18. Arkansas ranks lowest among the States in relation to manufactures and the mechanic arts. In 1850 it contained only 272 establishments, and the total capital invested in this branch of industry was only $324,065. Raw material consumed in the year $268,564, hands employed 903, cost of labor $169,356. The manufactures produced were valued at only $607,436. The value of goods manufactured in families was $638,217.

19. Arkansas has no direct foreign commerce. Its commercial staples are taken to New Orleans by steamboat and other river craft, and its imports are received through the same means. Internal trade is limited for want of roads, but along the navigable rivers great activity prevails throughout the year. The railroad is scarcely known within the borders of the State, a few miles of the Memphis and Little Rock Railroad being the only one as yet (1857) completed. This road, however, when opened through will give to Arkansas a new route to the east, which will have a great influence on its progress, and which in connection with the Fulton and Little Rock Railroad will furnish an outlet to the Indian Territory, with which Arkansas has already an extensive trade.

20. The constitution forbids the establishment of any banking institution within this State. None are at present in operation, and the old State banks have for some years been in liquidation.

21. The government is based on the constitution of the 4th January, 1836, and subsequent amendments thereto. By this instrument the right of voting is granted to every free white male citizen of the United States, and who has been a citizen of Arkansas for the preceding six months. General election is held on the 1st Monday of August every second (*even*) year.

22. The legislature consists of a senate of 25 members elected for four years, one half biennially, and a house of representatives of 75 members elected for two years. Sessions are biennial, and commence on the 1st Monday of November.

23. The governor is elected for four years. He must be a native-born citizen of the United States, and have resided four years in this State. The secretary of state, auditor, and treasurer are chosen by a joint vote of both houses of the legislature. The term of office of the present governor ends in November, 1860, and of the administrative officers in 1858.

24. The judiciary is exercised by a supreme court, six circuit courts, county courts, etc. The supreme court consists of a chief and two associate justices (elected by a joint vote of the legislature for eight years), the attorney-general, and a clerk and reporter. It has appellate jurisdiction only except in particular cases indicated by the constitution. Sessions are held at Little Rock in January and July. Pulaski County, in which is the seat of government, has a court of chancery. Judges of circuit and prosecuting attorneys are elected by the people, the former for four and the latter for two years; and hold two terms annually in their respective circuits. Their jurisdiction is original in all criminal and civil cases where not specially otherwise provided. Judges of inferior courts, justices of the peace, etc., are elected by the people for four years.

* In 1854 the quantity of land in cultivation was 875,180 acres, of which 256,666 acres were in cotton and 600,513 in grain, and the products of 1853 amounted to—cotton 160,779 bales, and Indian corn 11,586,969, wheat 332,585, and oats 1,040,206 bushels.

25. The finances of the State are made up for a period of two years. For the terms ending 30th September, 1850 and 1856, the receipts amounted to $89,988 and $332,287, and the total resources (including balances from next preceding terms) to $102,670 and $391,059. The total disbursements for the two periods amounted to $58,616 and $213,832. The revenue is derived chiefly from taxes. The outstanding absolute debt of the State (contracted on account of the old banks) amounted on the 1st November, 1855, to $1,506,017, and the contingent debt to $1,813,579. The government owns about 8,000,000 acres of swamp lands. Taxable property within the State in 1850 was valued at $34,995,885, and in 1855 to $65,479,734. Among the property taxed in 1855 were 122 saw-mills, 86 tanneries, and 26 distilleries. The penitentiary at Little Rock is the only public institution supported by the State.

26. In 1850 there were enumerated as having attended school in that year 23,361 scholars, being at the rate of one to every 6.9 of the free population. On the 1st of June, 1850, the statistics of the various educational institutions in the State were as follows:

Institutions.	Number.	Teachers.	Scholars.	Income.
Primary and public schools	353	355	8,493	$43,763
Academies and private schools	90	126	2,407	27,937
Universities and colleges	3	14	150	3,100

—making a total of 446 schools, 495 teachers, and 11,050 scholars; and an annual income of $74,800. The number of free persons over 20 years of age who could not read and write was 16,935, of which 16,908 were Americans and 27 foreigners, and 16,819 white and 116 free colored persons.

27. The most numerous of the religious denominations in Arkansas are the Methodist, Baptist, and Presbyterian. If the total population be divided into twelve parts, five of these would belong to the Methodist, four to the Baptist, and two to the Presbyterian. The remaining one twelfth is divided among the Roman Catholic, Episcopal, and the minor denominations under a variety of names. The whole number of churches in 1850 was 362, with accommodation for 60,226 persons, and the value of church property in the same year was $89,315, or about $1 50 for each sitting provided.

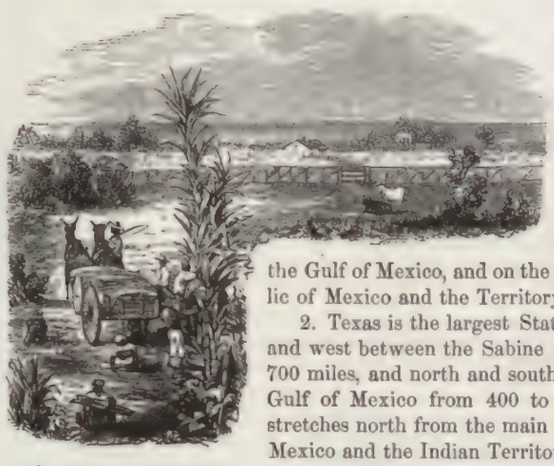
28. Little Rock, the seat of government, is situated on the right bank of the Arkansas, 300 miles from its mouth. Latitude 34° 40′ north, and longitude 83° 12′ west. The city, which stands on a high rocky bluff, the nearest rock to the mouth of the river, was founded in 1820. It is regularly laid out, and contains, besides the State and court houses, a United States arsenal, the State penitentiary, six or seven churches, etc., etc. Steamboat communication is established with the principal river towns, and a considerable trade is carried on both above and below. Population 2,167.

29. Arkansas Post, about 50 miles up the river, was settled by the French in 1685, and is the oldest town within the State. Population 584. Van Buren and Fort Smith, both on the Arkansas and near the western boundary, are thriving trading towns—the former with 964, and the latter with 1,382 inhabitants.

30. The population of several county towns is returned in the census of 1850 as follows: Warren, 679; Carrollton, 923; Arkadelphia, 248; Marion, 696; Princeton, 1,163; Napoleon, 239; Washington, 469; Batesville, 848; Pine Bluff, 460; Clarksville, 398; Huntsville, 255; Camden, 894; Helena, 614; Bolivar, 648; Waldron, 90; Paraclifta, 144; El Dorado, 1,925; and Fayetteville, 598. There are also other flourishing towns, chiefly on the lines of the great rivers.

31. Arkansas was a part of French Louisiana purchased by the United States, April 30th, 1803; and subsequently it formed a portion of the "Territory of Louisiana," and of "Missouri Territory" until 1819, when it was erected into a separate territory under its present name, derived from the great river which flows through it. Having adopted its constitution, Arkansas was admitted into the Union by act of Congress, June 15th, 1836. For the last ten or twelve years its progress has been rapid, and in the mean time its population has nearly duplicated.

STATE OF TEXAS.



1. Texas, formerly an independent republic, and at a still earlier date a province of Mexico, is situated between latitudes 25° 50′ and 36° 30′ north, and longitudes 93° 30′ and 106° 45′ west; and is bounded on the north by New Mexico and the Indian Territory, on the east by Arkansas and Louisiana, on the south by the Gulf of Mexico, and on the southwest and west by the Republic of Mexico and the Territory of New Mexico.

2. Texas is the largest State of the Union. It extends east and west between the Sabine and the Rio Grande from 500 to 700 miles, and north and south between the Red River and the Gulf of Mexico from 400 to 600 miles; a large section also stretches north from the main body of the State between New Mexico and the Indian Territory, extending from 34° to 36° 30′ north, with a width of three degrees. The area of the whole is computed at 237,504 square miles,* or 8.09 per cent. of the whole surface of the United States—an extent of territory nearly equal to that of the Austrian Empire and more than three times that of the six New England States. The coast-line has a length of 392 miles, but including its bays and other irregularities a length of 940 miles, or one mile of coast to every 253 square miles of surface. The islands by which it is beset have an additional shore-line of 390 miles.

* The State commissioner of land office estimates the area at 274,356 square miles, or 175,594,350 acres, of which in 1855 only 102,158,359 acres remained in the State's possession.

3. Texas may be divided into three physical districts or regions, each of which in many respects is entirely different from the others. These are the level, the undulating, and the hilly and mountain regions, or the lower, middle, and upper districts. The level region occupies the entire coast, extending from 30 to 60 miles into the interior. The undulating succeeds this, and embraces the whole of the interior and north, and reaches westward to the mountain tract. The mountains and table-lands are generally some 200 miles distant from the level regions, and cover the greater portion of northwestern Texas, on the confines of New Mexico. Of these little is as yet ascertained, but they are represented as rivaling the table lands of Anahuac, and to be rich in soil, well-watered, and abounding in the precious metals. The hills are first found between the Brazos and Colorado, but here they present but a low, broken appearance. Westward of the latter river, and north of the sources of the Nueces and San Antonio, the country is traversed in various directions by outliers of the great chain of the Rocky Mountains, none of which, however, attain any great elevation. In the second division are the high rolling verdant prairies, the narrow wooded bottoms, the beautiful islands of timber, the quick-running streams, and the healthful clime. Here the soil, but little broken, is not inferior to that of the alluvial country below, and the products are more varied. In this region the planter may raise cotton and tobacco, every kind of grain, and stock to any extent, and with very little labor. The alluvial lands of the several rivers which make into the Gulf are from three to 20 miles in width, and are heavily timbered, and on many of the rivers are cane-brakes of immense extent. These bottoms, and the alluvial forming the lower section of the State, are the proper fields for the cultivation of rice, sugar, and other Southern staples.

4. No part of the extensive coast of the Gulf of Mexico presents a greater number of harbors, bays, and inlets than that of Texas. The interior is intersected by numerous magnificent and navigable streams. Red River may be considered in part as belonging to Texas, and furnishes to the northeast section an outlet to the Mississippi, and the great mart of the southwest. The chief rivers, those which are more or less navigable for steamboats, are—the Sabine and Neches, the Trinity, the Brazos, the Colorado, the Guadalupe, the San Antonio, and the Rio Grande—the Sabine forming the boundary toward Louisiana and the Rio Grande that toward Mexico. Besides these there are others of less magnitude, though navigable to a considerable extent—the Angelina, San Jacinto, Buffalo Bayou, Oyster and Chocolate bayous, San Bernardo, Caney, Navidad, Lavaca, and Nueces. All these discharge their waters into the Gulf of Mexico, either directly or through large bays and estuaries. There are no lakes of any importance to be found in the country. A few small ones near the sources of the Guadalupe, and on some of the tributaries of the Red River and the Trinity, are all that are worthy of the name, and they are inconsiderable. To a country so well watered, intersected by rivers so numerous, and offering such valuable facilities for canal communication, they would be useless. Indeed, its vast water-courses might be united in one great navigable chain, which would render transportation from any section to a commercial emporium at any point on the coast a matter of the utmost ease, and not expensive.

5. Texas abounds in minerals. The silver mine of San Saba is among the richest in the world, and in Spanish times afforded a large revenue. Gold has been found on the Atoyac and other streams, and silver also on the Bedais. Iron ore pervades the greater portion of the country. Lead, copper, alum, etc., are found in several parts; and bituminous coal on the Trinity and Brazos. Salt is exceedingly abundant. The undulating country furnishes limestone, and in the level districts there are immense deposits of oyster shells. Agate, chalcedony, jasper, and some singular petrifactions are found near the mountains. Quarries of red and white sandstone or freestone abound throughout the country, and at Austin there is a quarry of white stone similar to that of the Paris basin, and of which the Louvre is built. The same kind of stone is found on the Trinity and in the vicinity of San Antonio de Bexar. Mineral springs—salt, sulphur, chalybeate, etc.—are numerous, and many of them of great value.

6. Though varying with location from tropical to temperate, the climate is remarkably pleasant and salubrious. The average notation of the thermometer in the summer season is 80° Fahr. During winter, ice is seldom seen except in the northwestern part of the State. Periodical winds, from the north in winter and from the south in summer, pass over the country, purifying the atmosphere and contributing much to the salubrity. The climate, indeed, is modified by so many favoring circumstances as to possess all the genial influences of Louisiana, while it escapes its attendant evils.

7. Texas in her forests has an infinite variety of timber suitable for building and ornamental purposes. Her forests of live-oak and cedar are unrivaled. The whole coast, nearly, including all the bayous and river bottoms, from the Sabine to the Nueces, is one entire belt of timber. The eastern section, probably, embraces more woodland than any other. It is heavily timbered with pine, oak, ash, walnut, hickory, pecan, mulberry, cedar, cypress, and other forest trees which extend to the Red River, occasionally variegated with beautiful prairies of greater or less extent. The soil is admirably adapted to grasses and other agricultural staples.

8. Among the productions that may be regarded as naturally adapted to the soil, and which now forms a chief and important article of commerce, cotton stands pre-eminent. This is the great staple of Texas. The sugar-cane grows luxuriantly throughout the whole level region, and tobacco throughout the State. The indigenous indigo of Texas is also an important staple, and of very superior quality. Breadstuffs of every description are produced easily and abundantly in every district, while flax and hemp are prospectively valuable crops. The fruits of the north and of the tropics flourish alike in this State. The fig is common, the peach unrivaled, the nectarine, quince, and grape luxuriant, and these, side by side, grow in the same sun and soil with the plum, apple, and pawpaw. The orange, lemon, and lime, the pine-apple and olive, ripen together. Berries are in great variety; the mulberry, dewberry, whortleberry, and gooseberry grow wild and in great profusion; and nuts—pecan, walnut, hickory, etc.—are very abundant. Garden vegetables of every description are cultivated with success.

9. In 1850 Texas contained 212,592 inhabitants, constituting 28,377 families, and occupying 27,988 dwellings. This population gave the State 0.89 inhabitants to the square mile, and

was 0.92 per cent. of the total population of the United States. The population of the counties was as follows:

Counties.	Population.	County Seats.
Anderson	2,884	Palestine.
Angelina	1,165	Marion.
Austin	3,841	San Felipe.
Bastrop	3,099	Bastrop.
Bexar	6,052	San Antonio.
Bowie	2,912	Boston.
Brazoria	4,841	Brazoria.
Brazos	614	Booneville.
Burleson	1,713	Caldwell.
Caldwell	1,329	Lockhart.
Calhoun	1,110	Port Lavaca.
Cameron, Starr, Webb	8,541	Brownsville, Rio Grande, Webb C. H.
Cass	4,991	Jefferson.
Cherokee	6,673	Rusk.
Collin	1,950	M'Kinney.
Colorado	2,257	Columbus.
Comal	1,723	New Braunfels.
Cook	220	Cook C. H.
Dallas	2,743	Dallas.
Denton	641	Alton.
De Witt	1,716	Cuero.
Ellis	989	Waxahachi.
Fannin	3,788	Bonham.
Fayette	3,756	La Grange.
Fort Bend	2,533	Richmond.
Galveston	4,529	Galveston.
Gillespie	1,240	Fredericksburg
Goliad	648	Goliad.
Gonzales	1,492	Gonzales.
Grayson	2,008	Sherman.
Grimes	4,008	Anderson
Guadalupe	1,511	Seguin.
Harris	4,668	Houston.
Harrison	11,822	Marshall.
Hays	387	San Marcos.
Henderson	1,237	Athens.
Hopkins	2,623	Tarrant.
Houston	2,721	Crockett.
Hunt	1,520	Greenville.
Jackson	996	Texana.
Jasper	1,767	Jasper.
Jefferson	1,836	Beaumont.
Kaufman	1,047	Kaufman.
Lamar	3,978	Paris.
Lavaca	1,571	Petersburg.
Leon	1,946	Leona.
Liberty	2,522	Liberty.
Limestone	2,608	Springfield.
Matagorda	2,124	Matagorda.
Medina	909	Castroville.
Milam	2,907	Cameron.
Montgomery	2,384	Montgomery.
Nacogdoches	5,193	Nacogdoches.
Navarro	2,190	Corsicana.
Newton	1,689	Burksville.
Nueces	698	Corpus Christi.
Panola	3,871	Carthage.
Polk	2,348	Livingston.
Red River	3,966	Clarkesville.
Refugio	288	Refugio.
Robertson	934	Franklin.
Rusk	8,148	Henderson.
Sabine	2,498	Milam.
San Augustine	3,648	San Augustine.
San Patricio	200	San Patricio.
Shelby	4,239	Shelbyville.
Smith	4,292	Tyler.
Tarrant	664	Tarrant C. H.
Titus	3,636	Mount Pleasant
Travis	3,188	Austin City.
Tyler	1,894	Woodville.
Upshur	3,394	Gilmer.
Van Zandt	1,348	Jordan's Saline.
Victoria	2,019	Victoria.
Walker	3,964	Huntsville.
Washington	5,983	Brenham.
Wharton	1,752	Wharton.
and Williamson	1,568	Georgetown.

—of the total population 154,034 (72.45 per cent.) were whites—84,869 males and 69,165 females; 397 (0.16 per cent.) free colored persons—211 males and 186 females, and 58,161 (27.36 per cent.) slaves—28,700 males and 29,466 females.

10. Of the total free population in 1850 the American born amounted to 137,053 (88.69 per cent.) of which 49,160 were natives of this State; the foreigners numbered 16,774, and there were 604 whose origin had not been ascertained. The number of natives of Texas resident in other States of the Union was 2,481.

11. The population of Texas in 1855 was estimated at 482,837, showing that the number of inhabitants had more than duplicated in the five years then ending. This rapid increase is due alike to foreign and domestic immigration. The foreigners settling in this State—chiefly in the west—are principally Germans, who come here in strong colonies under influential patronage and settle on the best lands. Their settlements are among the best cultivated and most flourishing in the State.

12. In 1850 there were in the State 42,856 free male persons over 15 years of age whose occupations were ascertained. Of these 7,327 were employed in commerce, trade, manufactures, mechanic arts, and mining; 25,299 in agriculture; 6,194 in labor not agricultural; 584 in the army; 321 in sea and river navigation; 1,368 in law, medicine, and divinity; 996 in other pursuits requiring education; 677 in government civil service, and 90 in unclassified occupations.

13. Thus the preponderant employment of the people is agriculture. In manufactures little progress has been effected. Commerce, however, is considerable, as in all new countries without manufactures, and which produce, as Texas does, such valuable staples as cotton and sugar. The industry of this State, however, is still in a very undeveloped condition, and its vast resources as yet but partially touched.

14. Texas in 1850 contained 12,198 farms and plantations, covering 11,496,339 (improved 643,976 and unimproved 10,852,363) acres, or about one eighth of the whole area. The value of these was $16,550,008, and the value of implements and machinery thereon $2,151,704.



FARM IN TEXAS.

15. The livestock of Texas in 1850 consisted of—horses 76,760, and asses and mules 12,463; 217,811 milch cows, 51,285 working oxen, and 661,018 other cattle; 100,530 sheep, and 692,022 swine—in all valued at $10,412,927. The value of animals slaughtered during the year had been $667,486. The products of the dairy consisted of 2,344,900 pounds of butter and 95,299 pounds of cheese, and the wool crop amounted to 131,917 pounds.

16. The cereals were produced in the following quantities: wheat, 41,729; rye, 3,108; oats, 199,917; Indian corn, 6,028,876; barley, 4,776, and buckwheat, 59—in all 6,277,565 bushels. The potato crop amounted to (including Irish 94,645) 1,426,803 bushels; that of peas and beans to 179,350 bushels, and that of hay to 8,354 tons.

17. Of the Southern staples, Texas produced 7,351,000 pounds of sugar; 441,918 gallons of molasses; 23,228,800 pounds of cotton; 88,203 pounds of rough rice, and 66,897 pounds of tobacco.

18. Among the miscellaneous products of the farm are also noted 380,825 pounds of beeswax and honey, 1,048 pounds of flax, and 99 gallons of wine. The value of market-garden products in 1850 was $12,354, and of orchard products $12,505. The total value of agricultural products for the census year was $9,065,181.



TEXAS LOG CABIN.

19. Texas in 1850 had 309 manufacturing and mechanic establishments, employing a collective capital of $539,290 and 1,066 hands, the cost of whose labor was $322,368. The value of raw material consumed was $394,642, and the products of the year amounted to $1,165,538. The value of goods produced in families was $266,984.

20. The direct foreign trade of Texas is comparatively insignificant. In 1850 the total value of merchandise exported from its own ports to foreign countries amounted to only $24,958, and in 1855 to $916,961. The imports of the same years were valued at $25,650 and $262,568. For the same two years the shipping cleared amounted to 3,608 and 10,964 tons, and entered to 3,671 and 8,553 tons; the shipping owned in the State to (registered 416 and steam 979) 3,897 and (registered 2,256 and steam 2,479) 8,801 tons, and the shipping built to 105 and 323 tons.

21. The great bulk of the commercial products are sent coastwise to New Orleans and the Atlantic ports, and the imports are returned by the same routes. Thus the coasting trade is far more valuable than the direct foreign trade. In this several steamers are employed, and a large sailing tonnage. The principal route to New Orleans is from Galveston by steamer to Brashear, on the Atchafalaya, and thence by New Orleans, Opelousas and Great Western Railroad. Other lines connecting at Galveston call at all the ports westward to the Rio Grande. Regular sailing packets ply between Galveston and New York, etc.

22. The internal trade of Texas is carried on by means of its rivers and the railroads so far as constructed. Steamers navigate all the great rivers, communicating with Galveston and other ports of the sea-board. The railroads of the State have their principal center at Houston, and diverge thence in every direction; but as yet the length of line completed is not above 200 miles. Galveston is the great center of both foreign and domestic trade.

23. The government of Texas is based on the constitution of 1845. By this instrument the right of voting is secured to every white male citizen 21 years of age, and who has resided in the State twelve and in the district six months next preceding an election. The general election is held on the first Monday in August.

24. The legislature is composed of a senate of 21 members, elected for four years, one half every second year, and a house of representatives of 66 members, elected for two years. Every voter is eligible as a representative. Senators must be 30 years of age. The legislative sessions are biennial, commencing on the first Monday in December. The sixth biennial session was held in 1855.

25. The governor and lieutenant-governor are elected for two years. They must have the qualifications of senators, and the lieutenant-governor is *ex-officio* president of the senate. The principal administrative officers are the secretary of state, attorney-general, state treasurer, controller, auditor, commissioner of claims, etc.

26. The judiciary is exercised by the supreme court, district courts, county courts, and justices of the peace. All judges are elected by the people for six years. The supreme court consists of a chief-justice and two associates, with a clerk and reporter, and holds annual sessions at Austin (October), Galveston (January), and Tyler (April). This court has appellate jurisdiction only. The State is divided into 18 districts, and the district court judges hold two sessions in each county annually. This court has original jurisdiction in all criminal cases, and in all suits, both in law and equity, in which the value in suit is $100. In criminal cases, if the punishment be not specifically determined by law, the jury determine it; in equity cases either party may demand a jury. There is also in each county a county court sitting once a month as a court of ordinary, and once in three months for the transaction of county business. Justices of the peace, with jurisdiction to the amount of $100, are elected in precincts for two years.

27. Texas is entirely free from debt, and on 31st October, 1854, had resources on hand amounting to $1,741,063, and received during the year then commencing, for back dues and interest, the sum of $123,243, making the total resources of the treasury for 1855, $1,864,306. The total disbursements for the year ending 31st October, 1855, amounted to $249,558, leaving a balance on hand amounting to $1,614,748. Since 1851 the expenses of the State have been paid from the general fund, consisting of United States 5 per cent. bonds, which were obtained in the settlement of the northwestern boundary. The State taxes in the meanwhile (with the exception of one tenth thereof, which is appropriated to the school fund) have been paid over to the counties in which they were assessed, for the erection of county buildings and other county expenses. In 1854 these amounted to $246,521, and in 1855 to $273,823. The valuation of taxable property in 1850 was $52,740,473, and in 1855, $149,521,451. The public domain, over and above all claims under the late Republic and the State, amounts to 102,158,359 acres.

28. The principal institutions founded and supported by the State are—the State University, for which 221,400 acres of land have been set apart; the Lunatic Asylum, for the erection of which $50,000 were granted, and for its support $10,000 a year, also 100,000 acres of land; asylums for the deaf and dumb and the blind, to each of which 100,000 acres

TEXAS.

GULF OF MEXICO

INDIAN TERRITORY

NEW MEXICO

EL LLANO ESTACADO OR STAKED PLAINS

High Elevated Table Lands without wood or water.
Elevation 3000 to 4000 feet.

LONGITUDE WEST FROM GREENWICH: 102, 101, 100, 99, 98, 97, 96, 95, 94

LONGITUDE WEST FROM WASHINGTON: 25, 24, 23, 22, 20, 19, 18, 17

LATITUDE: 35, 34, 33, 32, 31, 30, 29, 28, 27, 26

EXPLANATION.

State Capital ..... ✱ AUSTIN
County Towns ..... ◎ Bastrop
Rail Roads .....
Battle Fields ..... ⚔ 1846

SCALE OF STATUTE MILES.

0 10 20 40 60 80 100

50 Geographical or 57.63 Statute Miles, to one inch.

Entered according to Act of Congress in the Year 1858 by J.H. Colton & Co. in the Clerks Office of the District Court of the United States, for the Southern District of New York.

were granted and $5,000 a year; the State Orphan Asylum, to which 100,000 acres were granted, and the State Prison at Huntsville, etc.

29. The number of children in the State in 1850 attending school was 19,389, or one in every 7.9 of the population. On the 1st June of the same year the condition of educational institutions was as follows:

Institutions.	Number.	Teachers.	Scholars.	Income.
Primary and public schools	349	360	7,946	$44,088
Academies and private schools	97	137	3,389	39,384
Universities and colleges	2	7	165	1,000

—making a total of schools 448, of teachers 504, and of scholars 11,500, and an annual income of $84,472. The total number of free persons above 20 years of age unable to read and write was 10,583, of which 8,095 were Americans and 2,488 foreigners; and 10,525 white and 58 free colored persons.

30. In 1855 the number of scholars between 6 and 18 years of age was returned at 66,150. For the support of free schools the State has a permanent fund of $2,128,666, which is invested in United States 5 per cent. bonds, and this fund is annually increased by the addition of one tenth of the annual revenue derived from taxation. Besides this fund, the income of which is distributed to the counties, each county has four leagues or 17,712 acres of land set apart for the support of schools.

31. In 1850 Texas contained 328 churches of all denominations, with accommodation for 64,155 persons, and the value of church property was $206,930. The most numerous denominations were the Methodist, which counted more than one half the population, and the Baptist, Presbyterian, and Roman Catholic, which together counted a full third of the whole. The remaining sixth of the population belonged to the Episcopal and several minor denominations. The change in the relative denominational aspect of the State, however, must have materially varied in the next subsequent five years, in consequence of the vast influx of a foreign population.

32. Austin City, the capital of the State, is situate on the north bank of the Colorado, about 200 miles from the Gulf of Mexico. Latitude 30° 17′ north, and longitude 97° 48′ west. The river is navigable to this point during high water for steamboats. The State House is a new and handsome edifice. The city is a place of considerable business, and in the progress of events must become a leading center of trade. A railroad is being built from Houston to this place.

33. Galveston is the principal sea-port and largest city of the State. It is situate at the east end of the island at the mouth of the bay, both of the same name, and has the best harbor on the coast. Nearly all the foreign business of the State is transacted here, and regular lines of steamers communicate with New Orleans, about 450 miles to the east. A railroad is in operation to Houston. Houston is situate on Buffalo Bayou, about 40 miles from Galveston Bay, at the head of steamboat navigation. It is the shipping port for a fine agricultural region, in which cotton and sugar are largely produced. Railroads diverge hence in all directions. Harrisburg, lower down the bayou, is also a thriving town.

34. San Antonio, an ancient Spanish town on the river of the same name, is noted for its wealth and refinement. The town is also famous on account of the massacre of the Texan patriots at the Alamo, on the 6th March, 1836. It is an active business place, and has of late years become the depôt of a large and flourishing agricultural region. The San Antonio and Mexican Gulf Railroad connects it with the sea-board.

35. The other principal towns in Texas are—Bonham, Castroville, Comal, Corpus Christi, Crockett, Eagle Pass, Fredericksburg, Hortontown, Indianola, Lavaca, Marshall, M'Kinney, Nacogdoches, New Braunfels (a German settlement), Palestine, Richmond, Rusk, Victoria, etc.

36. The first European settlers in Texas were the French at Matagorda, but these were expelled by the Spaniards in 1690. Texas was a territory of the Mexican Republic until March, 1836, when it declared itself independent, which was conceded by Santa Anna after the battle of San Jacinto, 21st April, 1836, but this concession was not ratified by the senate. The first congress under the constitution held its first session at Houston, October 1st, 1836. The joint resolutions of the United States Congress admitting Texas into the Union were signed by the President of the United States on March 1st, 1845, and ratified by the Congress of Texas on the 4th July following. The State constitution was adopted at Austin City, August 27th, and ratified by the people October 13th, 1845. The first State legislature convened at Austin, February 16th, 1846, and annexation was consummated and the first governor of the State installed February 19th of the same year. The act of annexation led to the war with Mexico. Texas may hereafter be divided into five States.

STATE OF TENNESSEE.



TENNESSEE is situated between latitudes 35° and 36° 35′ north, and longitudes 81° 37′ and 90° 28′ west; and is bounded on the north by Kentucky and Virginia, on the east by the Alleghany Mountains and North Carolina, on the south by Georgia, Alabama, and Mississippi, and on the west by the Mississippi River, which separates this State from Arkansas and Missouri.

2. The greatest length of this State is on its northern frontier, where it measures about 420 miles, and its general width is from 100 to 110 miles. The area is estimated at 45,600 square miles, and hence Tennessee occupies 1.55 per cent. of the whole territory of the Union.

3. Tennessee is, perhaps, more diversified in the character of its surface than any other of the central States. In the east, mountain prevails, and in this section the country is traversed in a north and south direction by several ridges of the Apalachian chain, and in its topography presents much picturesque and beautiful scenery. The middle portion of the State is less bold in outline, and the surface imperceptibly declines by gradations from a region overspread with hills and swells of ever-changing and varying elevation and character, to a rolling country of excellent fertility, and watered by innumerable streams, affluents of its great rivers, the Cumberland and Tennessee. Between the Tennessee and the Mississippi, in the west, the surface is nearly level, the general evenness being interrupted only by the courses of the low watersheds dividing the tributaries of the two rivers, or by alternations of woodland and prairie. In all the country, however, there are few portions so hilly and broken as to interfere with its agricultural capacities; the hills are clothed with wood to their summits, and the soil is everywhere sufficiently fertile for profitable cultivation or yields nourishing grasses for pasturage to the hill-tops. The east abounds in minerals of the most valuable description, and the spurs of the mountains disclose in the various rocks useful building materials.

4. The Kittatinny range, under the local names of Stone, Bald, Iron, Smoky, and Unika mountains, forms the dividing line between Tennessee and North Carolina, while the prolongation of the Alleghany chain, of Chestnut Ridge, and of Laurel Ridge traverse the State north and south. The latter, which here takes the name of Cumberland Mountains, spreads out in this State to a breadth of about fifty miles, filling that section of the country which lies between the Tennessee and Cumberland rivers, before they take a westerly course, with long, irregular ridges, of no great elevation. Perhaps none of their summits exceed 2,000 feet in height, but the chains are continuous, interrupted only at great intervals by gaps or passes. In some places they are rocky and rugged, while in others, and generally, they swell gently from their elevated bases and embosom numerous delightful and fertile valleys. The valleys of the great streams—the Tennessee and Cumberland—differ little from the alluvions of other large rivers of the central region of the Union. In the small valleys are many fine plantations, so lonely that they seem lost among the mountains.

5. Noble rivers, open to navigation, and fine, pure streams, furnishing ample power for economical purposes, are distinguishing features of Tennessee. The Mississippi washes the western border for 160 miles, and its banks within the State afford some of the most commercial sites to be found in its long course.

6. The Cumberland has its sources and mouth in Kentucky, but runs for about 250 miles in Tennessee, through which is its most southern bend; it enters the State in longitude 85° 40′, and leaves it in 88° 12′, and within 12 miles to the east of the Tennessee River. To the city of Nashville, the capital of the State, navigation is easy and convenient.

7. The Tennessee also rises beyond the limits of the State. The Clinch and Holston have their sources in the Alleghany Ridge of Virginia, but the Watauga, a tributary of the Holston, the Nolichucky, and Big Pigeon, branches of the French Broad River, the Little Tennessee, and the Hiwassee, all rise in the Blue Ridge. The Little Tennessee is often considered as the main river, but it is much inferior to the Holston, with which it unites, and the confluence of the Holston and Clinch forms the Tennessee. Most of these rivers are navigable by boats, and they receive numerous valuable mill streams. The junction is effected at Kingston, whence the course of the Tennessee is south and southwest, until it enters Alabama, through which State to the Mississippi State line its course is west, and thence its course is north, through Tennessee and Kentucky, to the Ohio. After re-entering Tennessee, it flows 200 miles within its limits, and is navigable throughout that distance for steamboats. The Elk and Duck are its only considerable tributaries; rising in the same district, on the western slope of the Cumberland Mountains, they reach their common recipient at a distance of 200 miles from each other, and are both navigable for a considerable distance.

8. The Sequatchee is a smaller stream, flowing through a rich and beautiful valley in the Cumberland Mountains. Caney Fork and Stones River, the principal tributaries of the Cumberland, are navigable streams; the former rises within the mountains and the latter on their western slope. Western Tennessee is almost entirely drained by affluents of the Mississippi.

9. The mineral resources of Tennessee consist of valuable deposits of iron, copper, lead, etc., of which the ores are exceedingly rich. These are principally located in the eastern and middle sections of the State. Copper is of recent discovery, and promises to become a rich acquisition to the known mineral resources of the country. Iron is extensively reduced along the borders of the Cumberland River. The lead mines, although of easy excess, have only been partially worked. Gold is also found in the State. The gold region extends into the northeastern part of Tennessee, but the metal has not been collected in large quantities.

10. Coal of excellent quality has been mined in the mountains, but being less accessible than the coal fields of Ohio, operations have not been extensive. Formerly this coal was more extensively mined, and carried from Crab Orchard Mountain, near Emory's River, down the Tennessee to New Orleans. The supposed coal of Williamson, Davidson, and Maury counties, according to Prof. Troost, is aluminous slate.

11. The State contains quarries of excellent marble and other calcareous formations; gypsum is also abundant; nitrous earths are found in the limestone caverns, and there is a variety of other useful minerals throughout the country. East of the Tennessee, salt is abundant, and in the eastern section there are numerous sulphur and other mineral springs. Many of the caverns are of great extent; some have been explored for a distance of ten miles, and contain spacious apartments, and are traversed by considerable streams.

12. The climate of Tennessee is mild and genial, being free alike from the scorching heats of the south, and the chilling blasts of the north. Cattle may graze on the plains throughout the winter. Its salubrity is unquestionable; the low valleys, where the waters are stagnant, and the alluvions of the great rivers, being exceptions. The soil of east Tennessee, principally calcareous, is eminently fertile. In the west the soils vary; and the strata descend from the mountains in the following order: first, loamy soil or mixtures of clay and sand; next, yellow clay; next, a mixture of red sand and red clay; and lastly, white sand. In the southern parts are immense beds of oyster shells, on high table-land, at a distance from any stream. Nearly all the forest trees of the central country are found in this State. Juniper, cedar, and red savin cover the mountains. The pine forests of the eastern section are valuable for their tar, turpentine, etc. The sugar-maple is very abundant. Fruit in all its varieties is raised in great perfection in every part. The agricultural productions are similar to those of the Ohio valley generally, with the addition of cotton, which is grown chiefly in the south and west. The east is mainly engaged in cattle rearing, and exports largely to the south. Tobacco and hemp are also staples of Tennessee, and in quality are excellent.

13. With all these natural advantages and resources, however, the material wealth of the State has not progressed as might have been expected from the increase of its population. In proportion to capitation, indeed, the production of many staples has decreased, and in some cases there has been an absolute decrease. Such are the deductions predicated on a comparison of the official returns of 1840 and 1850 respectively. In cotton and hemp alone has there been any great increase.

14. In 1850 Tennessee contained 1,002,717 inhabitants, being 21.99 to the square mile or 4.32 per cent. of the total population of the United States. This population was included in 130,004 families, and inhabited 129,419 dwellings; and was distributed as follows:

EASTERN TENNESSEE.

Counties.	Population.	County Seats.	Counties.	Population.	County Seats.	Counties.	Population.	County Seats.
Anderson	6,938	Clinton.	Greene	17,824	Greeneville.	Morgan	3,430	Montgomery.
Bledsoe	5,959	Pikeville.	Hamilton	10,075	Harrison.	M'Minn	13,906	Athens.
Blount	12,424	Marysville.	Hancock	5,660	Sneedville.	Polk	6,388	Benton.
Bradley	12,259	Cleveland.	Hawkins	13,370	Rogersville.	Rhea	4,415	Washington.
Campbell	6,068	Jacksboro'.	Jefferson	13,204	Dandridge.	Roane	12,185	Kingston.
Carter	6,296	Elizabethtown.	Johnson	3,705	Taylorsville.	Scott	1,905	Huntsville.
Claiborne	9,369	Tazewell.	Knox	18,807	Knoxville.	Sevier	6,920	Sevierville.
Cocke	8,300	Newport.	Marion	6,314	Jasper.	Sullivan	11,742	Blountville.
Granger	12,370	Rutledge.	Meigs	4,879	Decatur.	Washington	13,861	Jonesboro'.
			Monroe	11,874	Madisonville.			

MIDDLE TENNESSEE.

Bedford	21,511	Shelbyville.	Humphreys	6,422	Waverly.	Rutherford	29,122	Murfreesboro'.
Cannon	8,982	Woodbury.	Jackson	15,673	Gainesville.	Smith	18,412	Carthage.
Coffee	8,351	Manchester.	Lawrence	9,280	Lawrenceburg.	Stewart	9,719	Dover.
Davidson	38,882	NASHVILLE.	Lewis	4,438	Hampshire.	Sumner	22,717	Gallatin.
De Kalb	8,016	Smithville.	Lincoln	23,492	Fayetteville.	Van Buren	2,674	Spencer.
Dickson	8,404	Charlotte.	Macon	6,948	La Fayette.	Warren	10,179	M'Minnville.
Fentress	4,454	Jamestown.	Marshall	15,616	Lewisburg.	Wayne	8,170	Waynesboro'.
Franklin	13,768	Winchester.	Maury	29,520	Columbia.	White	11,444	Sparta.
Giles	25,949	Pulaski.	Montgomery	21,045	Clarksville.	Williamson and Wilson	27,201	Franklin.
Grundy	2,778	Altamont.	Overton	11,211	Livingston.		27,443	Lebanon.
Hickman	9,397	Centreville.	Robertson	16,145	Springfield.			

WESTERN TENNESSEE.

Benton	6,315	Camden.	Hardeman	17,456	Bolivar	M'Nairy	12,864	Purdy.
Carroll	15,967	Huntingdon.	Hardin	10,328	Savannah.	Obion	7,633	Troy.
Decatur	6,003	Perryville.	Haywood	17,259	Brownsville.	Perry	5,821	Humphreysville
Dyer	6,361	Dyersburg.	Henderson	13,164	Lexington.	Shelby	31,157	Raleigh.
Fayette	26,719	Somerville.	Henry	18,233	Paris.	Tipton	8,887	Covington.
Gibson	19,548	Trenton.	Lauderdale	5,169	Ripley.	Weakley	14,608	Dresden.
			Madison	21,470	Jackson.			

—of the total population 756,836 (75.47 per cent.) are white persons—382,235 males and 374,601 females; 6,422 (0.64 per cent.) are free colored persons—3,117 males and 3,305 females, and 239,459 (23.8 per cent.) are slaves—118,780 males and 120,679 females; and the free population of 1850 was composed of 755,655 (99.01 per cent.) Americans, of which number 585,084 were born in this State, 5,740 were of foreign birth, and 1,863 were of origin not ascertained. The number of natives of Tennessee residing in other States was 241,606.

15. In 1790 Tennessee had 35,791 inhabitants; in 1800, 105,602; in 1810, 261,727; in 1820, 422,813; in 1830, 681,904; in 1840, 829,210, and in 1850 1,002,717. In 1855 the population was estimated at 1,107,583.

16. Of 168,240 free male persons, white and colored, over 15 years of age employed in industrial pursuits in 1850, the numbers employed in the several branches were as follows—23,432 in commerce, trade, manufactures, mechanic arts, and mining; 118,979 in agriculture; 17,559 in labor not agricultural; 258 in sea and river navigation; 3,363 in law, medicine, and divinity; 3,589 in other pursuits requiring education; 705 in government civil service; 10 in domestic service, and 345 in unclassified pursuits.

17. Tennessee is eminently an agricultural State; but it has also valuable manufactures, and mining is carried on to some considerable extent. Its internal trade is large, and its position in relation to the great lines of travel secures it all the benefits of an extensive transit trade between the sea-board and the neighboring States.

18. Mining operations are chiefly carried on in the neighborhood of the Cumberland River, and in some other parts of eastern and middle Tennessee. This is one of the great industrial interests of the State, and whether looking to iron, lead, or copper, is being rapidly developed. Coal is also claiming general attention.

19. In 1850 Tennessee contained 72,735 farms and plantations, which occupied 18,984,022 (improved 5,175,173 and unimproved 13,808,849) acres of land, valued at $97,851,212, and the value of implements and machinery thereon was $5,360,210. Thus about two thirds of the whole area were in private hands, and a little more than one sixth under cultivation.

20. The quantity of livestock in the State at the census periods of 1840 and 1850 was comparatively as follows:

1840	horses, mules, etc.,	341,409	neat cattle,	822,851	sheep,	741,593	swine,	2,926,607
1850	"	"	345,989	"	750,762	"	811,591	"	3,104,800

—and the whole in 1850 was valued at $29,978,016. The value of animals slaughtered in 1849–50 had been $6,401,765; and the products of animals in that year—butter 8,139,585, cheese 177,681, and wool 1,364,378 (in 1840, 1,060,332) pounds. The number of asses and mules in the State in 1850 was 75,303; of milch cows 250,456, and of working oxen 86,255, all included in the table above.

21. The cereal crops (bushels) of 1840 and 1850 compare as follows:

1840	wheat,	4,569,692	rye,	304,320	oats,	7,035,678	Indian corn,	44,986,188	barley,	4,809	buckwheat,	17,118
1850	"	1,619,386	"	89,137	"	7,703,086	"	52,276,223	"	2,737	"	19,427

—being in the aggregate in 1840, 56,917,805, and in 1850, 61,709,996 bushels. The potato crop in the same years amounted to 1,904,370 and 3,845,560 (Irish 1,067,844 and sweet 2,777,716) bushels. The crop of peas and beans in 1850 amounted to 369,321 bushels; the hay crop in 1840 to 31,233, and in 1850 to 74,091 tons; and in 1850 the crop of clover and grass-seed to 14,214 bushels.

22. The staple crops grown in this State in 1840 and 1850 were as follows:

1840	hemp and flax,	3,344 tons	cotton,	27,701,277 lbs	rice (clear),	7,977 lbs	tobacco,	29,550,432 lbs.
1850	"	"	779	"	"	77,812,800	"	" (rough),	258,554	"	"	20,148,932	"

—and in the latter year there were produced 3 hogsheads of cane sugar.

23. Among the miscellaneous products of 1849–50 are enumerated: hops 1,032 pounds, beeswax and honey 1,036,572 pounds, flax-seed 18,904 bushels, maple sugar 158,557 pounds, silk cocoons 1,923 pounds, etc. The value of market-garden products was $97,183, and of orchard products $52,894.

24. The total value of agricultural products in 1840 was $27,917,692—1850, $50,394,447.

25. In 1850 Tennessee contained 2,861 manufacturing, mining, and mechanic establishments, in which was employed an aggregate capital amounting to $6,975,279. The value of the raw material consumed in the preceding year had been $4,900,952, and the average number of hands employed 12,032, of which 878 were females. The cost of labor amounted to $2,277,228, and the value of the products of the year was $8,570,920. Among the establishments were 33 cotton-mills, with capital amounting to $669,600; 23 pig-iron works, with capital $1,021,400; 16 cast-iron works, with capital $139,500; 42 wrought-iron works, with capital $755,050; 30 distilleries, with capital $25,025, etc. In 1810 the total value of manufactures in Tennessee (including goods manufactured in families) was $2,747,701, in 1840, $8,517,394, and in 1850, $12,880,476.

26. Tennessee has no direct foreign commerce, but makes its imports and exports at New Orleans, Savannah, Charleston, and the Northern ports. The internal and transit trade—carried through its rivers, railroads, and other channels—however, is extensive. Memphis, Nashville, and Knoxville are the principal trading places. The exports are cotton, wool, hemp, flax, and cattle. The shipping owned in the State in 1850 was 3,776 and in 1855, 8,403 tons.

27. The system of railroads in Tennessee is as yet but partially completed, but great progress has been made, and several extensive lines have been projected. From Nashville and Knoxville, the principal centers, lines diverge in every direction—north toward Henderson, Louisville, Cincinnati, and Maysville; east toward Richmond, Wilmington, Savannah, and Charleston; south toward Mobile and New Orleans; and west toward the Mississippi, at Memphis, etc. The great line from Mobile to Cairo also passes through this State, and the Memphis and Charleston Railroad has its western terminus, and part of its course north of the Mississippi State line. Tennessee has no canals, but several of its rivers have been improved and rendered navigable.

28. The government of Tennessee is based on the constitution of 1796 as amended in 1834. The right to vote is granted to every free male white citizen 21 years of age, and who has resided in the county six months next before an election. The general election is held every second year on the 1st Thursday in August.

29. The legislature consists of a senate of 25 members, and a house of representatives of 75 members, all elected for two years. All voters who have resided in the State three years and in the county or district one year are eligible for election, but senators must be 30 years of age. The sessions are biennial, commencing on the 1st Monday of October.

30. The governor is chosen for two years. He must be 30 years of age, and have been a citizen of the State for seven years preceding election. In case of vacancy the speaker of the senate succeeds to the office, and he failing, the speaker of the house. The principal administrative officers are the secretary of state, the state treasurer, the controller, and attorney-general.

31. The judiciary is vested in the supreme court, courts of chancery, and circuit courts. The supreme court is constituted of three judges, one for each of the grand divisions of the State. For chancery purposes the State is divided into six divisions, each with a chancellor; and for circuit court purposes into 14 circuits, each with a separate judge. Davidson, the metropolitan county, has a special criminal court, and the city of Memphis a special common law and chancery court, and a criminal court. All judges are elected by the people of their several precincts for the term of eight years.

32. The revenue of the State is derived chiefly from taxes on property, poll tax, special taxes and licenses, net profits of State banks, etc. The total revenue for the two years ending 15th October, 1855, amounted to $1,035,715, or including a balance from former years to $1,242,147, and the expenditures to $1,154,307, of which $400,783 were paid for interest on State bonds. The value of taxable property in 1850 was $159,558,183, and in 1855, $219,011,048.

33. The absolute liabilities of the State on the 1st October, 1855, were $3,992,857, on which at 5 and 5½ per cent. accrue annually $215,327 interest. Of this liability, $2,051,857 were internal improvement bonds, $1,250,000 bank bonds, and $691,000 Capitol bonds. The State has likewise loaned its bonds to the amount of $4,752,000.

34. The principal institutions supported wholly or in part by the State are—the Hospital for the Insane at Nashville, the School for the Deaf and Dumb at Knoxville, and the Tennessee Penitentiary at Nashville.

35. The number of children attending school in 1850 was 146,200, or one to every 5.2 of the total free population. On the 1st June of the same year the school returns presented the following statistics:

Classification.	Number.	Teachers.	Scholars.	Income.
Primary and public schools	2,680	2,819	104,117	$198,518
Academies and private schools	264	404	9,928	155,902
Universities and colleges	18	83	1,705	65,307

—making a total of 2,962 schools, 3,306 teachers, and 115,750 scholars, and an annual income of $419,727. In 1856 the number of scholars was estimated at 291,407. The number of free persons over 20 years of age unable to read and write was 78,619, of whom 78,114 were Americans, and 505 foreigners, and 77,522 were white and 1,097 free colored persons. The State school fund amounts to $584,000.

36. The principal collegiate institutions with their statistics for 1855 are as follows:

Institutions.	Location.	Founded.	Professors.	Students.	Libraries.
Tusculum College	Greeneville	1843	2	36	2,000
Washington College	Washington Co.	1795	3	22	2,000
University of Nashville	Nashville	1806	7	101	10,500
Franklin College	Near Nashville	1844	6	106	3,700
East Tennessee University	Knoxville	1806	5	45	5,000
Cumberland University	Lebanon	1844	12	120	5,000
Jackson College	Columbia.	1833	4	90	4,500
Union College	Murfreesboro'	1848	6	133	2,200
Southwest Theol. (Presb.) Sem.	Maryville	1821	2	24	6,000
Theol. School, Cumb. University	Lebanon	1854	2	15	1,000
Law Depart., Cumb. University	Lebanon	1847	3	95	500
" " Univ. of Nashville	Nashville	—	—	—	—
Med. Depart., Univ. of Nashville	Nashville	1850	8	318	—
" " E. Tenn. Univer.	Knoxville	1855	8	—	—

37. The most numerous religious denominations are the Methodist, Baptist, and Presbyterian, which severally include two fifths, a third, and a fourth of the total population. Next

numerically may be named the Christian, Free Church, Episcopal, Union, Lutheran, and others, none of which approach the three prominent denominations. The Roman Catholics have scarcely a representation. Tennessee, in 1850, had 2,014 churches, with accommodation for 625,595 persons; and the value of church property was estimated at $1,216,101.

38. The principal cities of the State are Nashville, Memphis, and Knoxville, the population of which at successive periods has been as follows:

Cities.	1800.	1810.	1820.	1830.	1840.	1850.	1855.
Nashville	345	—	—	5,566	6,929	10,165	16,000
Memphis	—	—	—	—	—	8,851	12 687
Knoxville	518	—	—	—	—	2,076	5,000

—and the following are villages with 500 inhabitants and upward in 1850—in East Tennessee: Chattanooga 1,000, Cleveland 800, Greeneville 600; in Middle Tennessee: Clarkesville 2,000, Columbia 2,977, Dover 530, Edgefield 1,611, Franklin 894, Lebanon 1,554, Murfreesboro' 1,917, Pulaski 1,137, Shelbyville 1,615, South Nashville 1,353; and in West Tennessee: Bolivar 626, Brownsville 971, Dresden 633, Jackson 1,673, La Grange 700, Lexington 700, Paris 1,200, Savannah 800, Somerville 1,200, Trenton 732.

39. Nashville, capital of the State, is situated on the left bank of Cumberland River, 460 feet above the sea, and 184 miles from its confluence with the Ohio. Latitude (*University*) 36° 9′ 33″, and longitude 86° 49′ 3″. It is the most wealthy and populous city of the State, and distinguished alike for the enterprise of its people and its polished society. Many of its private residences are palatial, and its public buildings magnificent. The Capitol, which is built on an eminence 180 feet above the river, is one of the noblest structures in the Union, and cost $1,000,000. It is built entirely of freestone and iron, and roofed with copper. The other principal buildings are the State Lunatic Asylum and State Penitentiary. The University of Nashville, to which is attached a medical school, was founded in 1806, and is one of the most flourishing institutions of the West. The city has also several efficient high schools and female seminaries, and contains about 20 churches of the various denominations.



STATE-HOUSE, NASHVILLE.

40. As a commercial town, Nashville ranks among the great interior marts; and the river, during high water, is thronged with steamers and river boats from all parts. The shipping of the port in 1850 amounted to 3,776 tons, and in 1855 to 6,269 tons, all in steamboats. The trade of the city, however, has been largely promoted by making it the center of a vast system of railroads which come in from every direction, and extend to the great lakes and the Gulf, to the Atlantic sea-board and the whole West. The construction of these works has already given a vast impulse to the prosperity of the city, and when completed will rapidly advance its material interests. Nashville is also the seat of various and valuable manufactures. South Nashville may be regarded as a suburb of Nashville.

41. About 13 miles northeast of Nashville is the "Hermitage," the homestead of the late Andrew Jackson, the renowned general and president. In this secluded abode the last days of that great patriot were passed; and here, on the 8th of June, 1845, he died, at the advanced age of 79 years.

42. Memphis the great western port of Tennessee, is beautifully situated on the fourth Chickasaw bluff, just below the mouth of Wolf River, 414 miles below St. Louis and 798 miles above New Orleans. The site was formerly occupied by Fort Assumption. The bluff on which it stands is 30 feet above the highest floods, and its base is washed by the river for a distance of three miles, while a bed of sandstone, the only known stratum of rock below the Ohio, juts into the stream and forms a convenient landing. From the mouth of the Ohio to Vicksburg, 632 miles, it is the only site for a commercial mart on either side of the Mississippi. The appearance of the town from the river is remarkably fine. An esplanade several feet wide extends along the bluff in front, and is bordered by large blocks of warehouses. The signs of improvement and commercial activity, indeed, are everywhere visible, and in the past 15 years the population has quadrupled. It contains seven or eight churches, a medical college and other schools, etc., and the federal government has recently established a naval depôt here. The river is deep enough to float the largest ship of war from this point to New Orleans, and the building of steamboats has been commenced. Manufactures of cotton, ropes, bagging, and ironware are also carried on. The quantity of cotton shipped from this port is now upward of 200,000 bales a year. Steamboats ply to all the river ports; and its railroads are constantly increasing their traffic as they are extended into the interior. The railroads centering here are the Memphis and St. Louis and the Memphis and Little Rock from the west, and the Memphis and Charleston, the Memphis and Ohio, and the Mississippi and Tennessee—all of which are more or less completed. The line east, toward Charleston, was opened through early in 1857. Tonnage of the port (1855) 2,133 tons, all steam.



NAVY-YARD, MEMPHIS.

43. The other larger towns and villages of the State are—in *West Tennessee:* Bolivar, on the Hatchie, 168 miles southwest Nashville, and at the crossing of the Mississippi Central and Tennessee Railroad. The river is navigable hence to the Mississippi for small steamers two thirds of the year, and an active and increasing trade is carried on; Brownsville, on the Memphis and Ohio Railroad, 57 miles northeast Memphis, and a few miles from the Hatchie River, is the center of an active trade and the seat of a female college. It is surrounded by a rich cotton and corn country; Dresden is a flourishing town on the Nashville and Northwestern Railroad, 125 miles west Nashville; Jackson, on Forked Deer River, where it is crossed by the Mobile and Ohio and the Mississippi Central and Tennessee railroads; La Grange is a town on the Memphis and Charleston Railroad, 49 miles east Memphis; Lexington, on Beech River, an affluent of the Tennessee, 120 miles west-southwest Nashville, is an active trading town; Paris is a trading town 110 miles west Nashville, and is the point of junction of the Memphis and Ohio and the Memphis, Clarkesville and Louisville railroads; Perryville is a small cotton port on the Tennessee, 30 miles east Jackson; Savannah, on the east bank of Tennessee River, 120 miles southwest Nashville, is an active shipping port; Somerville is situated in a populous and fertile region on the Loosahatchie, by railroad 52 miles northeast Memphis, and is a place of large trade; Totten Wells is the point of junction of the Mobile and Ohio and the Nashville and Northwestern railroads; Trenton, on Forked Deer River, and on the line of the Mobile and Ohio Railroad, is a place of considerable commerce, and has several manufacturing establishments.

44. In *Middle Tennessee:* Clarksville, on the Cumberland at the mouth of Red River, and 56 miles northwest Nashville, is a prominent trading town, and is also on the line of the Louisville, Clarksville and Memphis Railroad; Columbia is a beautiful and thriving town on the left bank of Duck River, 45 miles by the Tennessee and Alabama Railroad south-by-west Nashville. It is the seat of Jackson College, founded in 1833, and two female seminaries. The town has a large trade, and will also be the northern terminus of the Southern Central Railroad to Decatur, Ala. The Tennessee and Alabama Railroad, already completed between Nashville and this town, will be extended to the Alabama line, and there connect with the New Orleans, Jackson and Great Northern Railroad from New Orleans. Columbia was the residence of James K. Polk, late President of the United States; Dover is a river-port on the Cumberland, 75 miles west-by-north Nashville; Edgefield is a pleasant village on the Cumberland River opposite Nashville. It is the southern terminus of the Edgefield and Kentucky Railroad, and is connected with the capital by a handsome suspension bridge; Franklin, on Harpeth River, an affluent of the Cumberland, and 19 miles south Nashville by the Tennessee and Alabama Railroad, has cotton and iron factories; Lebanon is situated 30 miles east the capital, and is distinguished for its manufactures. It is also the seat of the Cumberland University, with a law school established in 1847, and a divinity school in 1854; McMinnville is a small town at the terminus of the McMinnville and Manchester Railroad, 105 miles by railroad from Nashville, and is also the southern terminus of the Southwestern Railroad from Danville, Ky.; Manchester, on the same railroad, 23 miles southwest from McMinnville and 12 miles from the Tullahoma junction with the Nashville and Chattanooga Railroad, is situated at the forks of Duck River, which affords excellent water-power. There are some ancient stone walls here, which are attributed to times anterior to the coming of the white man; Mount Pleasant is a thriving town on the Tennessee and Alabama Railroad, 55 miles south Nashville; Murfreesboro', on the Nashville and Chattanooga Railroad, 32 miles southeast Nashville, is situated in a beautiful plain surrounded by a fertile and healthy country. Union College, located here, is a Baptist institution, and there is also in the town a flourishing female academy. Murfreesboro' was capital of Tennessee from 1817 to 1827, in which latter year the State House was burned down; Pulaski is situated on a branch of Elk River, 78 miles south Nashville, and is an active business place; Shelbyville, on Duck River, is a flourishing town reached from Nashville by a branch of the Nashville and Chattanooga Railroad; Winchester is a flourishing town on the Winchester and Alabama Railroad, two miles south of its junction with the Nashville and Chattanooga Railroad, and 85 miles southeast Nashville.

45. In *East Tennessee:* Chattanooga is a new and thriving town on Tennessee River, 151 miles southeast Nashville by the Nashville and Chattanooga Railroad. Here also comes in the Western and Atlantic Railroad from Georgia, and the Memphis and Charleston Railroad line; and it will be the eventual northern terminus of the Northeast and Southwest Alabama Railroad. A railroad is also in progress from Cleveland on the East Tennessee and Georgia Railroad. The surrounding country is abundantly supplied with coal and iron ore, and is eminently fertile. These favoring circumstances have built up a considerable town, and one that is constantly adding to its importance by the development of the country; Cleveland is an active business place on the East Tennessee and Georgia Railroad, 83 miles from Knoxville and 30 east of Chattanooga, to which latter a railroad is now being constructed; Greeneville is a flourishing town on the East Tennessee and Virginia Railroad, 68 miles east-northeast Knoxville. Near this town is Tusculum College; Jonesboro', on the same railroad, is also a thriving town, situated in a highly productive and beautiful valley; Knoxville is the chief city of East Tennessee, and was formerly the seat of the State government. Latitude 5° 59′, and longitude 83° 54′. It is beautifully situated on the right bank of the Holston, which is here navigable for steamboats all the year round, and in winter and spring they ascend to Kingsport. It is the seat of the State Asylum for the Deaf and Dumb and of the East Tennessee University. Knoxville is the chief trading town of this section of the State, and the center of a vast system of railroads which come in from all directions. It has also valuable manufactures and the largest glass-works in the southwest. With these advantages it is rapidly increasing in prosperity. The town was founded in 1794, and was the State capital from that year to 1817; Maryville, 18 miles south-by-west Knoxville, is the seat of the Southwestern Theological Seminary, founded in 1821.

46. Tennessee was originally included within the limits of North Carolina, from which colony the first inhabitants came. These immigrations occurred principally in the years 1754, 1765, and 1770. When the constitution of North Carolina was framed in 1776, Tennessee (then the District of Washington) sent deputies to the constitutional convention. In 1785 the separation of Tennessee from the parent State was attempted, though not accomplished; but in 1789 North Carolina proposed to cede the territory to the United States on certain conditions, which Congress accepted, and by its act of May 25th, 1790, constituted it "The Territory of the United States South of the Ohio." In 1794 Tennessee was erected

into a separate Territory; and in 1796 Congress passed an act enabling the people to form a State constitution, which was adopted, and having been approved by Congress June 1st, 1796, Tennessee was then admitted into the Union.

47. It is now proposed to erect, under the title of Frankland, a new State from the western sections of Tennessee and Kentucky and the northern portion of Mississippi. The reasons for such a proceeding are stated to be the incompatibility of the interests of the different sections as now organized, and the desire of the slave-holding States to have their number and their power in the federal senate increased.

STATE OF KENTUCKY.



1. KENTUCKY is situated between latitudes 36° 30′ and 39° 6′ north, and longitudes 82° 2′ and 89° 40′ west; and is bounded on the north by the Ohio River (separating this State from Illinois, Indiana, and Ohio), on the east by Big Sandy River and the Cumberland Mountains (which divide Kentucky from Virginia), on the north by Tennessee, and on the west by the Mississippi River which separates it from the State of Missouri.

2. The greatest length of Kentucky east and west is about 368 miles, and the greatest width, north and south, which occurs on the meridian of North Bend in Ohio is 172 miles. On account of the eccentricity of the outline of this State, however, its breadth varies exceedingly, being in the west not more than 30 miles, and its length aiso varies as much as 100 miles from a maximum. The area is estimated at 37,680 square miles, or 1.28 per cent. of the whole surface of the United States.

3. The general surface may be described as level or moderately uneven. The levels, however, are not absolute plains, but are interspersed with small risings and declivities, which make a scene of varying interest. In the southeast the Cumberland Mountains, which form the boundary toward Virginia, differ from this character; but even here no great elevations are attained; yet they give to the country overspread by them a rugged and mountainous appearance, and their numerous spurs or offshoots, projecting quite into the middle of the State, render the surface of the whole eastern division somewhat broken and hilly. Farther westward the country becomes undulating, abounding in bold features, although the hills are much less abrupt than in the east, and gradually sink down with more rounded forms and gentle acclivities, until merged into the almost level plains of the Cumberland, Tennessee, and Mississippi rivers. Along the Ohio, and extending from 10 to 20 miles in different places from it, are the Ohio Hills, parallel with that beautiful stream. These hills are often high, generally gracefully rounded and conical, with narrow vales and bottoms around their bases, and give to the country through which they extend a rough appearance; they are covered with lofty forests, and have often a good soil on their sides and summits; and the alluvial bottoms between them and the Ohio, and along the streams which flow into that river, are of the richest description.

4. Nature has been most bountiful to this State in its noble rivers and useful streams. Besides the exterior waters, the Ohio, Mississippi, etc., several important water-courses traverse the interior, and, with the single exception of the Upper Cumberland, these flow in a uniform direction, from southeast to northwest; and while the Ohio is the recipient of all the large rivers of the State, the Mississippi only receives a few inconsiderable streams.

5. The Sandy, Licking, Kentucky, and Cumberland rise in the same region in the mountains of the southeast. The Kentucky is a rapid stream, running, like the other rivers of the State, in a deep channel, with a rocky bed, and generally perpendicular banks; it flows through a rich and highly cultivated country, and in high stages of the water is navigable for steamboats to Frankfort, 60 miles, and for flatboats about 100 miles farther. The Licking, which also flows through a rich region, enters the Ohio opposite Cincinnati, and affords boat navigation for about 80 miles. Salt River rises in the center of the State; it has a great volume of water in proportion to the length of its course, and is navigable for boats 100 miles. It receives from the south a large tributary, called the Rolling Fork. Green River, likewise, rises in the center of the State, and takes a westerly course, until, having received the Big Barren from the south, it turns to the northwest. It has a gentle current, with great depth of water. Steamboats go up to Bowling Green, on the Big Barren, 180 miles, and flatboats ascend to near its head.

6. The Cumberland has its sources and its mouth in Kentucky, but the greater part of its course is in Tennessee. Rising in the western declivity of the Cumberland Mountains, it passes into the latter, and returning north, enters the Ohio in the former State. Its course is about 600 miles long, and steamboats go up to Nashville, Tenn., 120 miles, and in times of flood even to Burkesville, in Kentucky. The Tennessee being separated from the Cumberland by the mountains of the same name, has no portion of its head waters in Kentucky, but it enters the State about 70 miles above its mouth, and admits steamboats to Florence, in Alabama, a distance of about 300 miles. The navigation of several of these rivers has been improved by locks, etc., and in some the obstructions have been overcome by canals and littoral railroads.

7. In the geology of Kentucky the blue limestone occupies a conspicuous place; it forms the surface rock in a large part of the State, and furnishes a valuable material for building purposes. Among the cliffs of the Kentucky is found an excellent marble, capable of a fine polish. The cliff limestone is the base of the Ohio Falls at Louisville; the slate or shale is very common, bituminous, and supports combustion, and contains iron pyrites and ores, giving rise to mineral springs. The sand or freestone extends from Danville to Louisville, etc. The cavernous limestone, as its name imports, gives rise to many caves, the most famous of which is the Mammoth Cave, in Edmondson County. The limestone region, indeed, abounds in caverns, sinks, and subterranean water-courses. Several of the caves are of extraordinary dimensions, but the Mammoth Cave is the largest yet discovered. The conglomerate or pudding-stone consists of quartz pebbles, rounded and united with fine sand by a kind of natural cement; it underlies the coal formation. The coal beds of Kentucky are continuous of those of the



ENTRANCE TO THE MAMMOTH CAVE.

Ohio and Illinois, and cover an area of 10,000 or 12,000 square miles. Iron is equally abundant in the State. Small quantities of lead have also been traced in Kentucky, and silver ore near the Cumberland Falls. Salt springs abound in the sandstone formation, and saltpeter-earth and gypsum are fouud in the caves. Mineral springs are numerous, embracing sulphur, saline, chalybeate, etc.

8. The most productive soil of Kentucky is that of the blue limestone formation; and in the neighborhood of Lexington, and toward the Ohio, the country based on that rock is said to be the garden of the State. The line demarking this region passes from the Ohio round the heads of Kentucky and Licking rivers, Dick's Creek, and down Green River to the Ohio; and in this great compass of about 100 miles square is found one of the most fertile and extraordinary countries on which the sun has ever shone. In a state of nature it was covered with a dense forest of majestic trees and a close undergrowth of gigantic reeds. In the southern part, however, on the head waters of Green River and its tributaries, is an extensive tract, thinly wooded, and covered in summer with high grass, growing amid scattered and stunted oaks. Struck with the contrast, the early settlers gave these lands the name of "barrens," but as a general thing this appellative is by no means appropriate. There are, indeed, portions of the barrens too sterile and rugged to admit of cultivation; but the soil is generally productive, although not of the first quality, and is well suited for grazing. There are also tracts in the mountain regions and portions of land on the Ohio hills too much broken for general agriculture; but, as a whole, Kentucky has as great a portion of the best soils as any other State, and from the splendor of its climate has many advantages possessed by few other regions.

9. The country in general is well timbered. Perhaps among its forest growths none is more valuable than the sugar-tree, which grows in all parts, and furnishes the settler with an indispensable staple; and the honey-locust, so curiously surrounded by large thorny spikes, bears long pods, having a sweet flavor, and from which domestic beer is made. The coffee-tree grows large, and also bears a pod in which is inclosed coffee. The paw-paw is likewise abundant, and also the cane on which cattle feed and grow fat. There are many cane-brakes so thick and tall that it is difficult to pass through them. Where no cane grows there is abundance of wild rye, clover, and buffalo grass, covering vast tracts, and affording excellent pasture; and the fields are covered with wild flowers and herbage, which in summer give to the landscape an extraordinary beauty.

10. In 1850 Kentucky contained 982,405 inhabitants, being 26.07 to the square mile, or 4.24 per cent. of the total population of the Union. This was included in 132,920 families, and occupied 130,769 dwellings. Its distribution into the counties was as follows:

Counties.	Population.	County Seats.
Adair	9,898	Columbia.
Allen	8,742	Scottville.
Anderson	6,260	Lawrenceburg.
Ballard	5,496	Blandville.
Barren	20,240	Glasgow.
Bath	12,115	Owingsville.
Boone	11,185	Burlington.
Bourbon	14,466	Paris.
Boyle	9,116	Danville.
Bracken	8,903	Augusta.
Breathitt	3,785	Jackson.
Breckenridge	10,593	Hardinsburg.
Bullitt	6,774	Shepherdsville.
Butler	5,755	Morgantown.
Caldwell	13,048	Princeton.
Calloway	8,096	Murray.
Campbell	13,127	Alexandria.
Carroll	5,526	Carrollton.
Carter	6,241	Grayson.
Casey	6,556	Liberty.
Christian	19,580	Hopkinsville.
Clark	12,683	Winchester.
Clay	5,421	Manchester.
Clinton	4,889	Albany.
Crittenden	6,351	Marion.
Cumberland	7,005	Burkesville.
Daviess	12,362	Owensboro'.
Edmondson	4,088	Brownsville.
Estill	5,985	Irvine.
Fayette	22,735	Lexington.
Fleming	13,914	Flemingsburg.
Floyd	5,714	Prestonsburg.
Franklin	12,462	FRANKFORT.
Fulton	4,446	Hickman.
Gallatin	5,137	Warsaw.
Garrard	10,237	Lancaster.
Grant	6,531	Williamstown.
Graves	11,397	Mayfield.
Grayson	6,837	Litchfield.
Green	9,060	Greensburg.
Greenup	9,654	Greenupsburg.
Hancock	3,853	Hawesville.
Hardin	14,525	Elizabethtown.
Harlan	4,268	Mt. Pleasant.
Harrison	13,064	Cynthiana.
Hart	9,093	Munfordsville.
Henderson	12,171	Henderson.
Henry	11,442	New Castle.
Hickman	4,791	Clinton.
Hopkins	12,441	Madisonville.
Jefferson	59,831	Louisville.
Jessamine	10,249	Nicholasville.
Johnson	3,873	Paintville.
Kenton	17,038	Independence.
Knox	7,050	Barboursville.
Laurel	4,145	London.
La Rue	5,859	Hodgenville.
Lawrence	6,281	Louisa.
Letcher	2,512	Whitesburg.
Lewis	7,202	Clarksburg.
Lincoln	11,093	Stanford.
Livingston	6,578	Smithland.
Logan	16,581	Russellville.
M'Cracken	6,067	Paducah.
Madison	15,727	Richmond.
Marion	11,765	Lebanon.
Marshall	5,269	Benton.
Mason	18,344	Maysville.
Meade	7,898	Brandenburg.
Mercer	14,067	Harrodsburg.
Monroe	7,756	Tompkinsville.
Montgomery	9,903	Mount Sterling.
Morgan	7,620	West Liberty.
Muhlenburgh	9,809	Greenville.
Nelson	14,789	Bardstown.
Nicholas	10,861	Carlisle.
Ohio	9,749	Hartford.
Oldham	7,629	La Grange.
Owen	10,444	Owenton.
Owsley	3,774	Booneville.
Pendleton	6,774	Falmouth.
Perry	2,092	Hazard.
Pike	5,865	Pikeville.
Pulaski	14,195	Somerset.
Rock Castle	4,697	Mount Vernon.
Russell	5,349	Jamestown.
Scott	14,946	Georgetown.
Shelby	17,095	Shelbyville.
Simpson	7,733	Franklin.
Spencer	6,842	Taylorsville.
Taylor	7,250	Campbellsville.
Todd	12,268	Elkton.
Trigg	10,129	Cadiz.
Trimble	5,963	Bedford.
Union	9,072	Morganfield.
Warren	15,123	Bowling Green
Washington	12,194	Springfield.
Wayne	8,692	Monticello.
Whitley	7,447	Williamsburg.
Woodford	12,423	Versailles.

—of the total population 761,413 (77.5 per cent.) were white persons—392,804 males and

368,609 females, 10,011 (1.02 per cent.) were free colored persons—4,863 males and 5,148 females, and 210,981 (21.48 per cent.) were slaves—105,063 males and 105,918 females; and of the free population, white and colored, 740,881 (96.04 per cent.) were American born, of which number 601,764 were natives of this State, 29,189 were foreigners, and 1,354 were of origin not ascertained. The number of Kentuckians in other States of the Union was 257,643.

11. Kentucky in 1790 contained 73,077 inhabitants; in 1800 it had 220,955; in 1810, 406,511; in 1820, 564,317; in 1830, 687,917; in 1840, 779,828, and in 1850 (as above), 982,405. The population in 1855 was estimated at 1,113,678.

12. Of 191,075 free male persons over 15 years of age industrially occupied in this State in 1850, the numbers engaged in the several great branches were as follows: 36,598 in commerce, trade, manufactures, mechanic arts, and mining; 115,017 in agriculture; 28,413 in labor not agricultural; 204 in the army; 1,027 in sea and river navigation; 3,811 in law, medicine, and divinity; 4,420 in other pursuits requiring education; 902 in government civil service, and 471 in unclassified employments.

13. Agriculture and cattle grazing are conspicuous industrial pursuits in Kentucky. The State, however, has also important manufactures, a busy mining industry, and a great and increasing commerce. Its geographical position is eminently advantageous for a rapid development of its resources.



14. Kentucky in 1850 contained 74,777 farms and plantations, in which were inclosed 16,949,748 (improved 5,968,270 and unimproved 10,981,478) acres of land, or about two thirds of the whole surface of the State. The cash value of these was $75,814,398, and the cash value of implements and machinery thereon $11,576,938. Thus the average value of farms, etc., was $6,511.

15. The quantity of livestock in the State as returned in 1840 and 1850, was as follows:

	horses, mules, etc.,		neat cattle,		sheep,		swine,
1840	395,859	"	787,093	"	1,008,240	"	2,310,533
1850	381,291	"	752,512	"	1,102,091	"	2,891,163

—and the value of the whole in 1850 was $29,661,436; and the value of animals slaughtered in the preceding year was $6,462,598. In the same year the number of asses and mules was 65,609; of milch cows 247,475, and of working oxen 62,274, all included in the above table. The products of animals in 1850 consisted of butter 9,947,523, of cheese 213,954, and of wool 2,297,433 pounds. In 1840 the wool crop amounted to 1,786,847 pounds.

16. The grain crops of 1840 and 1850 compare as follows:

	wheat,		rye,		oats,		Indian corn,		barley,		buckwheat,
1840	4,803,152	..	1,321,373	..	7,155,974	..	39,847,120	..	17,491	....	8,168
1850	2,142,822	..	415,073	..	8,201,311	..	58,672,591	..	95,343	....	16,097

—making a total in 1840 of 53,153,279, and in 1850 of 69,542,237 bushels. The potato crop in 1840 amounted to 1,055,085, and in 1850 to 2,490,666 (Irish 1,492,487 and sweet 998,179) bushels; the hay crop in the two years to 88,306 and 113,747 tons, and the crops of peas and beans in 1850 to 202,574 bushels.

17. The Southern staple products of the State were comparatively as follows:

	hemp and flax		cotton		rice		tobacco
1840	9,992 tons	.....	691,456 lbs.	.....	16,376 lbs.	.....	53,436,909 lbs.
1850	hemp 1,050 and flax 17,787 = 18,837	"	"	303,200 "	"	5,688 "	" 55,501,196 "

—and also in 1850, cane sugar 10,000 pounds.

18. Other agricultural products according to the returns of 1850 were—hops 4,309 pounds, clover seed 3,230 pounds, other grass seed 21,481 pounds, beeswax and honey 1,158,019 pounds, flax seed 75,801 pounds, maple sugar 437,405 pounds, molasses 30,079 gallons, silk cocoons 1,281 pounds, wine 8,093 gallons, etc. The value of market-garden products was $303,120, and of orchard products $106,230.

19. The total value of agricultural products of this State in 1840 amounted to $26,233,968, and in 1850 to $52,477,680.

20. Manufactures, mining, and the mechanic arts in 1850 were conducted in 3,609 several establishments, employing an aggregate capital of $12,350,734 and 24,385 (male 22,445 and female 1,940) persons. The cost of raw material, etc., consumed in the year was $12,170,225, and the cost of labor $4,764,096; value of the products of the year $24,588,483. Among the manufacturing establishments are enumerated—8 cotton mills, with a capital of $239,000; 25 woolen mills, $249,820; 21 works for pig-iron, $924,700; 20 works for iron castings, $502,200; 4 works for wrought-iron, $176,000; 81 distilleries and breweries, $201,335; 12 salt works, $121,450; 275 tanneries, $763,455, etc. The progress of manufactures in Kentucky is illustrated by the value of the products at decennial periods: in 1810 this was $5,307,380; in 1840, $13,221,958; and in 1850, $27,089,019—in each instance including the value of home-made goods.

21. Kentucky has no direct foreign commerce, but trades seaward through the ports of the Gulf of Mexico and the Atlantic. Its domestic commerce by river and railroad, however, is very extensive, and of late years has been largely increased. The chief commercial places are Catlettsburg, Maysville, Covington, Louisville, Henderson, Smithland, Paducah, etc., on the Ohio River, and Columbus on the Mississippi. From most of these places railroads (some completed and some only in progress or projected) extend into the interior and across the State into Tennessee, and all are engaged in external navigation. In the interior there are a great number of commercial towns, found chiefly on the navigable rivers and the railroads. Of these, Lexington is perhaps the most important, and may be considered as the commercial and railroad center of the State. The exports of Kentucky consist chiefly of hemp and flax, tobacco, cotton, horses, cattle, bagging, rope, etc.

22. The shipping owned in this State in 1850 amounted to 14,820 tons, and in 1855 to 22,680 tons, all of which was navigated by steam. The number of vessels (steamers) built in 1850 was thirty-four, of an aggregate burden of 6,461 tons: in 1855 twenty-seven, 9,401 tons.

23. The internal improvements of Kentucky are numerous, and embrace river improvements, canals, railroads, bridges, turnpikes, etc. In all the great rivers important improvements have been made. The principal of these are the works on the Kentucky, Green, Licking, and Big Sandy rivers; and the Portland and Louisville Canal, which overcomes the falls of the Ohio. The latter is one of the most important works in the Union, but still inadequate for the trade which seeks its facilities, and it is now proposed to open a similar canal on the Indiana side of the river. The principal railroads are those diverging from the towns on the Ohio toward Knoxville, Nashville, and the south; and the great roads from Mobile and New Orleans cross the western part of the State terminating at Columbus, a point opposite to Cairo, Ill., and Paducah. At the end of 1857 the total length of completed railroad in the State was about 300 miles. The geographical position of the State, however, is such as to invite a rapid development of the railroad within its borders, and many years can not elapse before the material interests of the people will demand an extension of works of this description. The commonwealth has hitherto left to individual effort the construction of these works.

24. Kentucky in 1850 had twenty-six banks and branches, with an aggregate capital of $7,536,927; and in 1855 thirty-three such institutions, with $10,454,572. The liabilities of these banks in the two years were respectively, for circulation, $7,643,075 and $12,634,533; deposits, $2,322,657 and $3,608,757; due to other banks, $1,256,589 and $2,555,953; and miscellaneous, $100,807 and $532,000. At the same periods the assets consisted of loans and discounts, $12,536,305 and $21,132,519; stocks, $694,962 and $678,389; real estate, $419,070 and $488,504; other investments, $440,127 and $535,730; due by other banks, $2,451,155 and 3,731,463; notes of other banks, $550,879 and $965,878; and specie, $2,794,351 and $4,611,766.

25. The constitution of 1850 is the basis of the government. It grants the right of voting to every free white male citizen 21 years of age, and who has resided in the State two years, in the county one year, and in the precinct 60 days next preceding an election. All votes are *viva voce;* and the general election is held on the 1st Monday of August.

26. The legislature consists of a senate of 38 members elected for four years, one half biennially, and a house of representatives of 100 members, chosen in single districts for two years. Senators must be 30 and representatives 24 years of age, and citizens of the United States, and residents of the State. The sessions commence on the 1st Monday in December every second year, and continue not longer than 60 days unless a prolongation is agreed upon by two thirds of each house.

27. The governor is chosen for four years. He must be 35 years of age, a citizen of the United States, and a resident of six years' standing. The lieutenant-governor is *ex officio* president of the senate, and in case of vacancy succeeds the governor. The secretary of state is appointed by the governor; but the treasurer is elected by the people for two years, and other administrative officers for four years.

28. The judiciary consists of the court of appeals, circuit courts (13 in number), and county courts. Louisville has a separate chancery court. All judges, justices of the peace, and officers of courts are elected by the people; judges of the court of appeals from districts for eight years, one every second year, and of the four the one having the shortest time to serve is chief-justice; judges of circuit for six years, and justices of the peace for four years. The officers of courts are elected for the same term as is the presiding judge of their court.

29. Revenue is derived principally from direct taxation, specific taxes, and polls. The ordinary receipts for the year ending 10th October, 1851, amounted to $738,245, and 1855 to $995,427; and the expenditures to $733,653 and $739,696. At the end of the financial year, 1855, the treasury had a surplus of $255,731. The State debt at the last-named period amounted to $5,993,576, for the payment of the principal and interest of which a sinking fund is in operation, which in 1855 received $662,494, and disbursed $519,015. In 1850 the total value of taxable property in the State was $317,082,604, and in 1855, $407,326,443. The rate of taxation in 1855 was 17 cents on every $100.

30. The principal institutions supported wholly or in part by the State are the Lunatic Asylum at Lexington and the Western Lunatic Asylum at Hopkinsville, the Deaf and Dumb Asylum at Danville, the School for the Blind at Louisville, the State Penitentiary, and a Normal School at Lexington. To the latter each representative district can send one pupil.

31. The number of children reported as in attendance at schools in 1850 was 131,205, being at the rate of one to every 6.1 of the total free population. On the 1st June of the same year the school returns presented the following statistics:

Classification.	Number.	Teachers.	Scholars.	Income.
Primary and public schools	2,234	2,306	71,429	$211,852
Academies and private schools	330	600	12,712	252,617
Universities and colleges	15	100	1,773	131,461

—making a total of 2,579 schools, 3,006 teachers, and 85,914 scholars, and an annual income of $595,530. The number of free persons over 20 years of age unable to read and write in 1850 was 69,706, of which 67,359 were Americans and 2,347 foreigners, and 66,687 were white and 3,019 free colored persons. In 1855 the number of children reported was 215,002, and the average attendance at the public schools 113,763. The school fund amounted to $1,443,164.

32. The principal collegiate and professional schools in the State in 1855 were as follows:

Institutions.	Location.	Founded.	Professors.	Students.	Libraries.
Transylvania University	Lexington	1798	8	25	15,000
St. Joseph's College	Bardstown	1819	20	169	5,500
Centre College	Danville	1823	5	180	6,000
Augusta College	Augusta	1825	4	—	3,000
Bacon College	Harrodsburg	1836	4	—	1,000
Shelby College	Shelbyville	1837	6	44	600
Georgetown College	Georgetown	1840	7	83	7,000
Western Military Institute	Drennon Springs	1847	9	141	2,000
St. Aloysius' College	Louisville	1849	6	—	1,000
Paducah College	Paducah	1852	7	19	—
Western Bapt. Theol. Seminary	Covington	1840	4	18	2,000
Danville (Presb.) Theol. School	Danville	1853	4	37	—
St. Mary's Theol. (R. C.) Sem	New Lebanon	—	1	—	—
Law Depart., Transyl. Univer.	Lexington	—	3	—	Univ. Lib.
" " Univ. of Louisville	Louisville	—	3	—	Univ. Lib.
" School, W. Military Institute	Drennon Springs	1853	3	—	Col. Lib.
Med. Depart., Transyl. Univer.	Lexington	1818	8	—	—
" " Univ. of Louisville	Louisville	1837	8	—	—

33. The most numerous of the religious denominations in Kentucky are the Baptist,

Methodist, and Presbyterian, which include respectively a third, a fourth, and a sixth of the total population. Next in numbers are the Christian and Roman Catholic denominations; and after these the Free, Union, and Episcopal, etc. The total number of churches in the State in 1850 was 1,845, with accommodation for 671,053 persons; and the value of church property was estimated at $2,252,448.

34. Frankfort is the seat of government. It is built on high ground on the right bank of Kentucky River, 62 miles from its mouth, in latitude 38° 14′, and longitude 84° 40′—551 miles west-by-south Washington. The site is an elevated plain between the river, here between 60 and 100 yards wide, and flowing through a deep channel of limestone rock, and the bluff, which rises a short distance behind the town. Frankfort is regularly laid out and generally well built. The State House, a handsome edifice of Kentucky marble, stands on an eminence nearly midway between the river and bluff. It is 86 feet long by 54 feet deep, with a portico supported on six Ionic columns. The governor's house is a plain brick edifice. The other public buildings are the State Penitentiary, Court House, and Jail, and five churches. Water is supplied to the town from an excellent spring, from which it is conveyed in iron pipes. The manufactures of the town are considerable, and its trade active and progressive, being facilitated by railroads leading directly to Louisville and Lexington and indirectly to Covington and Danville, and will ultimately be connected with the east and southeast by the Lexington and Big Sandy Railroad. The river navigation is also complete, and has been extended by locks and dams above the town to the junction of its constituents. Population (1810) 1,099, (1820) 1,679, (1830) 1,680, (1840) 1,917, (1850) 3,308, and in 1855 about 5,000. A chain suspension bridge connects the town with the flourishing village of South Frankfort, a suburb on the opposite bank of the river.

35. Louisville is the chief commercial and manufacturing city of Kentucky, and the third in importance on the Ohio River. Latitude 38° 3′, and longitude 85° 30′. It is situated at the mouth of Bear Grass Creek and at the head of the Falls of the Ohio, 637 miles below Pittsburg and 376 miles above the mouth of the Ohio. The city occupies a plain sloping to the river, is regularly laid out and well built, consisting of ten broad streets (from 60 to 120 feet wide, parallel to the river) and thirty others, uniformly 60 feet wide, intersecting them at right angles. The streets are generally paved and lighted with gas and adorned with shade trees. Along the river are spacious wharves. Several of the public buildings have considerable architectural pretensions—the principal of these are the University, with law and medical departments; the State School for the Blind, the General Hospital, two orphan asylums, the Marine Hospital, the City Hall, Court House, and many of the churches and school-houses. Louisville has also several literary and scientific institutions.

36. The manufactures of Louisville are very extensive, and embrace a great variety of products. It has several founderies and machine shops, at which a vast amount of machinery, etc., is annually turned out, several large steam bagging factories and ropewalks, cotton and woolen factories, tobacco factories, flouring mills, distilleries, breweries, agricultural implement factories, and others, small and large, which in the aggregate constitute a vast industry. Its hog-packing establishments may also be noted; and also its large manufactories of furniture, soap and candles, white-lead, glass, pottery, etc. Its trade is immense, and embraces a wide and productive circuit. Its wharves are at all times thronged by steamboats and other



RAFT ON THE OHIO RIVER.

river craft, carrying to and fro a merchandise inferior only in amount to that moved at Cincinnati and Pittsburg. The value of its commerce is scarcely less than $80,000,000 annually, and the amount is constantly increasing. Its exports consist chiefly of tobacco, bagging, rope and cordage, spirits, pork, flax and hemp, livestock, machinery for steamboats and railroads, factories, mills, and farms (manufactured in the city), and a great amount of groceries and assorted merchandise; and its imports comprise every article and product needed in its interior commercial range. Steam packets carrying the mails and passengers come and go several times a day from, and destined to, all the commercial cities of the river lines. Its commerce is also greatly facilitated by means of its railroads, which, completed or in progress, give it access in every direction to the sources of supply and the fields of demand. Its local and retail trade is also immense, chiefly as regards groceries, dry goods, boots and shoes, drugs, etc.

37. Louisville was laid out as early as 1773, but no settlement was made for the subsequent five years, nor until after the expulsion of the British from their posts on the Wabash. It was named Louisville by the Virginia legislature, in honor of Louis XVI. of France, in commemoration of his alliance with the great Republic of the West, then just rising from its probationary condition of colonial dependence. The first block-house was built in 1778, but this was subsequently removed to make way for Fort Nelson, erected in 1782. In 1780 the town was established by an act of the legislature of Virginia. At this period it contained only 30 inhabitants, and in 1800 its population scarcely numbered 600 souls. In 1810 it contained 1,357 inhabitants; in 1820, 4,052; in 1830, 10,352; in 1840, 21,210; and in 1850, 43,194; a census in 1852 gave it 51,726. Three miles below Louisville is the town of Portland, which is connected with the metropolis by a railroad worked by horse-power. Portland is at the foot of the falls as Louisville is at the head; and the falls, which have a descent of 22 feet in 2½ miles, are overcome by the Portland Canal.

38. Lexington is the most important inland town of the State, distant 29 miles by railroad east Frankfort, and on the line of railroad from Louisville to Virginia. It is built on Town Fork of the Elkhorn. Latitude 38° 6′, and longitude 84° 18′. The town is the center of a vast trade and the seat of valuable manufactures, the most important of which are bagging, ropes, machinery, carriages, iron and brass works, silverware, etc. It was founded in 1776, and was formerly the State capital. Transylvania University and the State Lunatic Asylum are located here. Population (1850) 9,180, now (1855) about 12,000. About a mile and a half from this town is Ashland, the homestead of the late Henry Clay; Maysville, on the Ohio, 62 miles above Cincinnati, is a handsome city, backed by bold and verdant highlands, and is compactly built. In business importance it ranks fourth among the towns of Kentucky, and is the most extensive hemp market in the United States. Among its various manufactures the most important are those of cotton goods, bagging, rope, iron, carriages, and agricultural implements. A railroad is under construction to Lexington, which will connect it with the South and West. Population (1850) 4,256, now (1855) 6,500.

39. Covington is a busy commercial mart on the Ohio, just below the mouth of Licking River and opposite Cincinnati. On the right bank of the Licking is the city of Newport. These cities are but suburbs of Cincinnati, and correspond to it in plan, and are connected therewith by ferries. Here are extensive pork-packing establishments and manufactures of iron, machinery, hemp, tobacco, etc. Covington has also a large trade, which is facilitated by the Kentucky Central Railroad, and the city will become the outlet of several other railroads now under construction. The Western Baptist Theological Institution is located here. In 1850 Covington contained 9,408, and Newport in 1850, 5,985.

40. Danville is situated in a rich, fertile, and populous section of the State, 35 miles southwest Lexington, and is important as a business center, to which several great lines of railroad are now under construction. It is the seat of the State Asylum for the Deaf and Dumb. Previous to 1792 it was the capital of Kentucky. Population (1850) 2,650.

41. Paris is a town of 2,500 inhabitants, on the Maysville and Lexington Railroad, at the point where it is joined by the Kentucky Central Railroad. It is a place of active trade, and contains several mills, etc. Harrodsburg is eligibly situated a few miles north of Danville and about a mile from Salt River. It is said to be the oldest town in Kentucky, having been settled in 1775. It is an important market for cattle, horses, etc., and has a large general trade. A railroad is in progress which will connect it with Louisville. The Harrodsburg Springs are among the most celebrated in the State. Population (1850) 1,481.

42. Henderson, on the Ohio, 10 miles below Evansville, is the port of export for a fine country, and has large manufactures of tobacco, etc. It is about being connected with Nashville by railroad. Population (1850) 1,775; (1855) about 1,600; Paducah, on the Ohio, immediately below the mouth of the Tennessee, is a place of active business, and ships large quantities of tobacco, pork, horses, etc. It has a fine range of warehouses along the river. It will be the terminus of a branch of the Mobile and Ohio Railroad. Population (1850) 2,428. It is the seat of a college; Smithfield is a river-port on the Ohio, immediately below the mouth of Cumberland River. Population 882.

43. Hickman, on the Mississippi, a few miles above the Kentucky State line, and 30 miles below the mouth of the Ohio, has an active shipping business, and will be the terminus of the Nashville and Northwestern Railroad, now under construction. Population (1850) 401; Hopkinsville has a population of about 3,500, and is the seat of the Western Lunatic Asylum. It is one of the most flourishing towns of Kentucky. Columbus is a new town on the Mississippi, and one of the termini of the Mobile and Ohio Railroad.

44. Kentucky originally formed a part of the Territory of Virginia. About the year 1747 the Cumberland River was visited and named by a party from that colony, and in the succeeding years Kentucky became famous as a hunting-ground. The first permanent settlements were made near Lexington in 1775, when Harrodsburg and Boonesboro' were founded, and about the same time the colony of Transylvania was organized. In 1776 the present territory of Kentucky was constituted a county of Virginia. In 1785 a convention petitioned the Virginia legislature for the separate organization of Kentucky, which was assented to, but the separation was not consummated until 1790, when Kentucky became a separate Territory. On the 1st of June, 1792, it was admitted into the Union as a State.

STATE OF OHIO.



1. Ohio is situated between latitudes 38° 24′ and 42° north, and longitudes 80° 34′ and 84° 42′ west; and is bounded on the north by Michigan and Lake Erie, on the east by Pennsylvania and Virginia, on the south by Kentucky, and on the west by Indiana. The Ohio River separates this State from Virginia and Kentucky. The average length of Ohio, north and south, is about 220 miles, and the average breadth about 200 miles. In shape it is an irregular square, and very compact; and altogether contains 39,964 square miles, or 1.36 per cent. of the whole territory of the United States.

2. Though the surface is much and delightfully varied, it nowhere presents any considerable elevations above the general level; but the country is a lofty table-land, which in its middle zone is about 1,000, and on the northern and southern borders from 600 to 800 feet above the sea-

level. A slightly elevated ridge of highlands divides the waters flowing north into Lake Erie from those flowing south into the Ohio. From this there is rather a rapid descent to the level. The general slope toward the Ohio is interrupted by a subordinate ridge, which crosses the State in the latitude of Zanesville and Columbus, between which and the river the surface is very much diversified by hills and valleys. The central belt consists of extensive flat tracts, with numerous broad swells rising from the plains, and swamps and morasses occasionally occur. The northern or Erie slope also contains extensive morasses. The extent of swamp lands in the State, however, is only about one twentieth part of the whole. Nine tenths of the surface are susceptible of cultivation, and nearly three fourths of the soil are eminently productive. Even the hills are cultivated to their summits. The river bottoms are very extensive, and exuberantly fertile. In the center and northwest, prairies or native meadows are numerous and wide, but the greater part of the country was originally covered with magnificent forests, and even at the present day timber is abundant.

3. The Ohio River, on the south, and Lake Erie, on the north, are the recipients of all the rivers of this State. The Ohio runs along the southern shore for nearly 500 miles, and the principal rivers falling into it are the Muskingum, the Hockhocking, the Scioto, the Miami, etc. The Muskingum, which enters it at Marietta, rises in the northern watershed, near the head waters of the Cuyahoga, and drains a beautiful and fertile district. It is navigable for steamers to Zanesville, 75 miles, and nearly to its sources, 120 miles, for small boats. Sandy River and Wells' Creek from the east, and Walhonding and Licking rivers from the west, are its principal tributaries. The Hockhocking rises on the southern ridge, and reaches the Ohio at Hocking Port, after a course of 80 miles through a hilly and picturesque country, abounding in yellow pine. It is a deep and narrow stream, and boats ascend it to Athens. The Scioto is a fine navigable river, entering the Ohio at Portsmouth. It flows through a wide and fertile valley, and in the upper part of its course is environed by rich and beautiful prairies. Boats have ascended it to near its source, and passed by a portage of four miles into the Sandusky and Lake Erie. Many thriving towns are located on its banks. The Little Miami has its rise in the southern ridge, and although too much broken by falls to be useful as a navigable channel, it is a fine mill-stream—it enters the Ohio about 12 miles above Cincinnati. The head waters of the Miami or Big Miami approach very near to those of the Scioto, the Auglaize, and the St. Mary's; its current is rapid, but it is navigable for 70 or 80 miles; and at Dayton and other points it furnishes immense water-power. It is 200 yards wide at its mouth, and enters the Ohio in the southwest corner of the State, after a course of 100 miles.

4. Among the northern rivers are the Maumee, Sandusky, Cuyahoga, etc. The Maumee or Miami of the Lakes, which has its source in Indiana, is the most important of these; it is formed by the union of the St. Joseph's, St. Mary's, and Auglaize rivers. In the spring and fall it is boatable to Fort Wayne, and for steamboats to Perrysburg, 18 miles from its mouth, and at all times furnishes large water-power. It enters Lake Erie through Maumee Bay. The Sandusky is a rapid stream, but navigable to Fremont City. It enters the lake through Sandusky Bay, an immense bay, destined to become a scene of a mighty commerce. The Cuyahoga rises near Lake Erie, but taking a southwesterly course, it approaches the head of the Muskingum, and thence flows northward into the lake at Cleveland. It is more than 60 miles long, and has numerous falls, and along its banks several manufacturing towns have sprung up. Besides these, there are other important streams flowing into the lake, as Portage, navigable for 12 miles from Port Clinton; Huron, navigable to Milan, 14 miles; Vermillion, Black, Rocky, etc., all of which are navigable to a greater or less extent, and which at their mouths furnish harbors.

5. Iron, coal, and lime, the most useful of minerals, abound in all the eastern parts of the State, and are deposited in beds of vast thickness. Salt springs are also numerous in this region. The coal of Ohio is bituminous, and lies very accessible. The principal points of coal mining are at Talmadge, Pomeroy, Nelsonville, and some points in Stark and Coshocton counties. Extending through the counties of Lawrence, Gallia, Jackson, Meigs, Vinton, Athens, and Hocking is a belt of iron ore, averaging some twelve miles in width, and extending a distance of one hundred miles or more in length. Coal of the very best quality, from three to twenty and even thirty feet in thickness, also underlies these counties, together with others, sufficient to last for ages as a material of fuel for manufacturing in their midst, as well as for supplying the market demand beyond the mineral region. The salines are immensely valuable, although not in the same proportion as the coal-fields and iron deposits. There are salt wells on Yellow Creek, above Steubenville; on Wells' Creek; on the Muskingum, from the Coshocton to near its mouth; on the Hockhocking; on Leading Creek, and in numerous other localities. The salt rock is reached generally at from 600 to 800 feet from the surface, and the brine in many cases yields ten per centum of salt. Marble and freestone, well adapted for building purposes, and gypsum also occur; and there are in various places mineral springs.

6. The soils are almost everywhere suitable for agricultural purposes. The river bottoms are exceedingly fertile, while the rich level plain of the interior is scarcely of inferior productiveness. The eastern and southeastern parts are hilly, but hardly any portion of the surface is so broken as to be unfit for tillage. The marshy tracts in the north have an excellent soil, and may be easily drained. On the whole, indeed, Ohio may be regarded as one of the most fertile countries of the world.

7. On account of the general elevation of the surface, the average temperature is several degrees lower than in the Atlantic States on the same parallel. The winters are occasionally severe, and the summer is subject to tornadoes, but the autumn is always temperate, serene, and pleasant. Along the valley of the Ohio the weather is more equable and mild than in the interior. Little snow falls in this section of the State. Near the marshy spots and stagnant waters fevers and agues prevail, especially among new settlers, but, as a general fact, few States can boast of so healthy a climate.

8. The forests produce black walnut, various species of oaks, hickory, sugar-maple, and several other sorts of maple, beech, birch, poplar, ash, sycamore, pawpaw, buckeye, cherry, dogwood, elm, hornbeam, etc. With the exception of a few cypress-trees, this State produces scarcely any evergreens. Many sorts of medicinal roots are found here, as ginseng, valerian, columbo, snake-root, blood-root, etc.

9. Wild animals, formerly abundant in this State, are now seldom seen. The wolf, bear, and others are occasionally found in the unsettled parts, but may be said to be extinct as common animals. Deer, raccoons, and various small game are abundant; and birds of various descriptions, as geese, ducks, snipes, pheasants, grouse, still afford sport and sustenance to the settler. Fish of almost every description abound in the waters.

10. Aboriginal works in this State, as in most others in the great West, still remain as objects of antiquarian research. In the neighborhood of Circleville are the earth-works from which that city takes its name, and works of like character are found in various other localities. Near Marietta is a mound 31 feet high, inclosed by an elliptical wall with a periphery of about 1,300 or 1,400 feet. Fort Ancient, in Warren County, and Clarke's Works, in Ross County, are also instances of this kind. These works are attributable to races which preceded the advent of the Indians found in the country by the first explorers.

11. In 1850 Ohio contained 1,980,329 inhabitants distributed into 348,514 families, occupying 336,098 dwellings. This was equivalent to 49.55 inhabitants to the square mile, and 8.54 per cent. of the population of the Union. The counties were as follows:

Counties.	Population.	County Seats.
Adams	18,883	West Union.
Allen	12,109	Lima.
Ashland	23,813	Ashland.
Ashtabula	28,767	Jefferson.
Athens	18,215	Athens.
Auglaize	11,388	Wapakonetta.
Belmont	34,600	St. Clairsville.
Brown	27,332	Georgetown.
Butler	30,782	Hamilton.
Carroll	17,685	Carrollton.
Champaign	19,782	Urbana.
Clarke	22,178	Springfield.
Clermont	30,455	Batavia.
Clinton	18,828	Wilmington.
Columbiana	33,621	New Lisbon.
Coshocton	25,674	Coshocton.
Crawford	18,177	Bucyrus.
Cuyahoga	48,099	Cleveland.
Darke	20,276	Greenville.
Defiance	6,966	Defiance.
Delaware	21,817	Delaware.
Erie	18,568	Sandusky City.
Fairfield	30,264	Lancaster.
Fayette	12,726	Washington.
Franklin	42,909	Columbus.
Fulton	7,781	Ai.
Gallia	17,063	Gallipolis.
Geauga	17,827	Chardon.
Green	21,946	Xenia.
Guernsey	30,488	Cambridge.
Hamilton	156,844	Cincinnati.
Hancock	16,751	Findlay.
Hardin	8,251	Kenton.
Harrison	20,157	Cadiz.
Henry	3,484	Napoleon.
Highland	25,781	Hillsboro'.
Hocking	14,119	Logan.
Holmes	20,452	Millersburg.
Huron	26,203	Norwalk.
Jackson	12,719	Jackson C. H.
Jefferson	29,133	Steubenville.
Knox	28,872	Mount Vernon.
Lake	14,654	Painesville.
Lawrence	15,246	Burlington.
Licking	38,846	Newark.
Logan	19,162	Bellefontaine.
Lorain	26,086	Elyria.
Lucas	12,368	Maumee City.
Madison	10,015	London.
Mahoning	23,785	Canfield.
Marion	12,618	Marion.
Medina	24,441	Medina C. H.
Meigs	17,971	Pomeroy.
Mercer	7,712	Celina.
Miami	24,999	Troy.
Monroe	28,351	Woodsfield.
Montgomery	38,218	Dayton.
Morgan	28,585	M'Connellsville.
Morrow	20,280	Mount Gilead.
Muskingum	45,049	Zanesville.
Ottawa	3,308	Port Clinton.
Paulding	1,766	Charloe.
Perry	20,775	Somerset.
Pickaway	21,006	Circleville.
Pike	10,953	Piketon.
Portage	24,419	Ravenna.
Preble	21,736	Eaton.
Putnam	7,221	Kalida.
Richland	30,879	Mansfield.
Ross	32,074	Chillicothe.
Sandusky	14,305	Frémont.
Scioto	18,428	Portsmouth.
Seneca	27,104	Tiffin.
Shelby	13,958	Sidney.
Stark	39,878	Canton.
Summit	27,485	Akron.
Trumbull	30,490	Warren.
Tuscarawas	31,761	N. Philadelphia.
Union	12,204	Marysville.
Van Wert	4,793	Van Wert.
Vinton	9,353	M'Arthurstown.
Warren	25,560	Lebanon.
Washington	29,540	Marietta.
Wayne	32,981	Wooster.
Williams	8,018	Bryan.
Wood	9,157	Perrysburg.
Wyandott	11,194	Up. Sandusky.

—of the total population, 1,955,050 (98.72 per cent.) were white persons—1,004,117 males and 950,933 females, and 25,279 (1.28 per cent.) were free persons of color—12,691 males and 12,588 females; and of the whole 1,757,556 (88.75 per cent.) were American born, of which number 1,219,432 were born in this State, 218,512 (11.03 per cent.) were of foreign birth, and 4,261 of origin not ascertained. At the same time 295,453 natives of Ohio were resident in other States of the Union.

12. The population of this State in 1800 was 45,365; in 1810, 230,760; in 1820, 581,434; in 1830, 937,903; in 1840, 1,519,467; and in 1850 (as above), 1,980,329. In 1855 the population was estimated at 2,311,829.

13. The employments of 530,792 males over 15 years of age were returned in 1850 as follows: engaged in commerce, trade, manufactures, mechanic arts, and mining, 142,687; in agriculture, 270,362; in labor not agricultural, 92,766; in sea and river navigation, 4,109; in law, medicine, and divinity, 9,001; in other pursuits requiring education, 8,263; in government civil service, 1,218; in domestic service, 1,167; and in miscellaneous pursuits, 1,219 persons.

14. Ohio ranks next to New York as an agricultural State, and next to New York, Pennsylvania, and Massachusetts as a manufacturing State; and in no other State are these two great interests so nearly proportioned in regard to the value of their productions. Mining for coal is also a large and valuable interest, and already its mines furnish nearly the entire wants of the State besides large quantities for export. In commerce and the means of internal communication Ohio stands pre-eminent, and it occupies the first place among the States of the interior.

15. In 1850 Ohio contained 143,807 farms including 17,997,493 (improved 9,851,493 and unimproved 8,146,000) acres of land, valued at $358,758,603; and the value of implements and machinery thereon was $12,750,585.

16. The quantity of livestock in the State according to the censuses of 1840 and 1850 was as follows:

1840	horses, mules, etc.,	430,527	neat cattle,	1,217,874	sheep,	2,028,401	swine, 2,097,746
1850	" "	466,820	"	1,358,947	"	3,942,929	" 1,964,770

—the whole in 1850 valued at $44,121,741; and the value of animals slaughtered in 1849-50 was $7,439,243. The number of mules and asses in 1850 was 3,423, of milch cows 544,499, and of working oxen 65,381, all included in the above aggregates of horses and neat cattle. Of animal products the following are noted in the census of 1850—butter 34,449,379 pounds, cheese 20,819,542 pounds; and wool 10,196,371 pounds. In 1840 the production of wool amounted to only 3,685,315 pounds.

17. The food crops (bushels) in 1840 and 1850 were comparatively as follows:

1840	wheat,	16,571,661	rye,	814,205	oats,	14,393,103	Indian corn,	33,668,147	barley, 212,440	buckwheat, 633,189
1850	"	14,487,351	"	425,918	"	13,472,742	"	59,078,695	" 354,358	" 638,060

—making a total of grain in 1840 amounting to 66,322,692, and in 1850 to 88,457,124 bushels. The potato crop in 1840 was 5,805,021, and in 1850 (including "sweet" 187,991), 5,245,760 bushels, and the crop of peas and beans in 1850 was 60,168 bushels. Hay (1840) 1,022,037 and (1850) 1,443,142 tons.

18. Other agricultural products in 1850 were as follows—hops 63,731 pounds, clover-seed 103,197, and other grass-seed 37,310 bushels, beeswax and honey 804,275 pounds, flax-seed 188,880 bushels, flax 446,932 pounds, hemp 150 tons, maple-sugar 4,588,209 pounds, molasses 197,308 gallons, tobacco 10,454,449 pounds, silk cocoons 1,552 pounds, wine 48,207 (in 1840, 11,524) gallons, etc. One fifth of all the wine produced in the United States is the yield of the Ohio vineyards, chiefly in the vicinity of Cincinnati. Value of market-garden products $214,004, and of orchard products $695,921.

19. In 1850 Ohio contained 10,622 establishments engaged in manufactures, mining, and the mechanic arts. The aggregate capital invested in these industries amounted to $29,019,538, and 51,489 persons were employed therein at an annual cost of $13,467,660. The cost of the

raw material consumed in the year was $34,677,937, and the value of the manufactures produced was $62,647,254.

20. The following exhibits the statistics of the chief branches of manufactures:

Branches.	Number of Establishments.	Capital Invested.	Hands Employed.	Value of Products.
Cotton	8	$297,000	401	$394,700
Wool	130	870,220	1,201	1,111,027
Iron—Pig	35	1,503,000	2,415	1,255,850
" —Castings	183	2,063,650	2,758	3,069,350
" —Wrought	6	164,800	276	127,849
Distilleries and breweries	58	1,262,974	1,033	3,451,003
Tanneries	706	1,340,289	1,826	1,964,591
Salt works	32	188,750	167	132,293
All others	9,464	21,328,755	41,412	51,140,591

—and the following exhibits the value of manufactures produced in Ohio at stated periods:

Census Years.	Cotton Goods.	Woolen Goods.	Iron, Pig and Cast.	Wrought Iron.	Spirits and Beers.	Home-made Goods.	All other Manufactures.	Total Value.
1810	$887,053	$132,920	$109,090	$74,123	$585,892	$ —	$501,152	$2,290,230
1820	51,315	689,292	413,350	491,707	479,511	—	3,165,252	5,290,427
1830	(No census of manufactures returned.)							
1840	139,378	685,757	1,665,301	485,290	1,922,354	1,853,987	24,706,384	31,458,401
1850	394,700	1,111,027	4,325,200	127,849	3,451,003	1,712,196	53,237,475	64,359,450

—the home manufactures in the first two periods are included in the cotton and woolen goods returns.

21. The direct foreign commerce of Ohio is very limited, and is confined to an intercourse with Canada. In 1850 the exports were valued at $217,632, and in 1855 at $847,143, and the imports in those years at $582,504 and $600,656. The shipping employed in this trade in 1850 amounted to 73,678 tons, of which 33,807 cleared and 39,871 entered, and in 1855 to 125,925 tons, viz., 57,410 cleared and 68,575 entered. The shipping owned in the State in 1850 amounted to (including steamers 28,653) 62,462 tons, and in 1855 (steam 44,148), 91,607 tons. In the latter year Cleveland had (steam 15,012) 51,078, Sandusky (steam 307) 8,052, Toledo (steam 115) 3,763, and Cincinnati (all steam) 28,713 tons. The shipping built in 1850 amounted to 5,214 tons, and in 1855 to 17,751 tons.

22. The domestic and transit commerce of the State by lake, river, and canal, and by railroad, is immeasurably more extensive than the foreign commerce. The canals of Ohio are magnificent works, uniting the lakes at Cleveland and Toledo with the Ohio valley at Portsmouth and Cincinnati, and extending into Pennsylvania on the one hand and into Indiana on the other hand. The railroad system embraces nearly 3,000 miles of railroad, crossing and recrossing the State and connecting the principal towns within its own limits, and forming with the systems of the adjoining States parts of the great lines extending from the sea-board to and beyond the Mississippi, and from the lake shores to those of the Gulf of Mexico.

23. In November, 1850, Ohio contained fifty-seven banks and branch banks, and in 1855 sixty-six such institutions, with aggregate capital amounting to $8,718,366 and $7,166,581. The liabilities of these banks in the years respectively consisted of—circulation $1,059,700 and $8,074,132, deposits $5,310,555 and $5,450,566, due to other banks $1,305,839 and $949,727, and other liabilities $343,856 and $411,652. The assets comprised—loans and discounts $17,059,593 and $13,578,339, stocks $2,200,891 and $2,466,247, real estate $451,593 and $298,222, other investments $460,692 and $1,006,525, due by other banks $3,373,272 and $2,751,312, notes of other banks $1,195,655 and $905,555, specie funds $93,460 and $158,310, and specie $2,750,537 and $1,690,105.

24. The constitution of Ohio bears date 10th March, 1851. This instrument secures the right of voting to every white male citizen of the United States, 21 years of age and who has resided in the State one year. General election is held on the 2d Tuesday of October annually. All votes are by ballot.

25. The general assembly consists of a senate of 35 members, and a house of representatives of 100 members, all of which are elected in districts for two years, and each must have resided in his own district for the year next before election. The legislative sessions are held every second year, commencing on the 1st Monday in January.

26. The governor is chosen for two years. The lieutenant-governor, the secretary of state, the state treasurer, and attorney-general are elected for the same term, and the state auditor for four years.

27. The judiciary is vested in a supreme court with five judges, courts of common pleas, district courts, probate courts, etc. Judges of the supreme and common pleas courts are elected in districts for five years, and judges of all inferior courts and justices of the peace for three years. Cincinnati and Dayton have each a separate superior court.

28. The revenue of the State is derived chiefly from direct taxes, canal tolls, land sales, etc. The expenditures are principally on account of school, the State debt, State institutions, and public works. The expenses of the government proper in 1855 amounted to only $148,015. The total resources of the treasury (including $584,681 surplus from previous year) for the year ending 15th November, 1855, amounted to $4,215,854, and the expenditures for the same year to $3,512,484. The State debt on the 1st January, 1856, amounted to $16,273,427, the annual interest on which was $956,893. The total value of taxable property in 1850 was $439,876,340, and in 1855, $860,877,354. The total tax levied, including State, county, township, school, etc., taxes, amounted in the latter year to $8,954,512, of which sum $2,754,807 were State taxes.

29. The principal institutions supported wholly or in part by the State are the Ohio Lunatic Asylum, the Deaf and Dumb Asylum, the Institution for the Blind, and the Ohio Penitentiary, all located at or near Columbus.

30. The number of children returned in 1850 as attending school was 514,809, or 26 per cent. of the total population. On the 1st June of the same year the schools presented the following statistics:

Classification.	Number.	Teachers.	Scholars.	Income.
Primary and public schools	11,661	12,886	484,153	$743,074
Academies and private schools	206	474	15,052	149,392
Universities and colleges	26	180	3,621	125,792

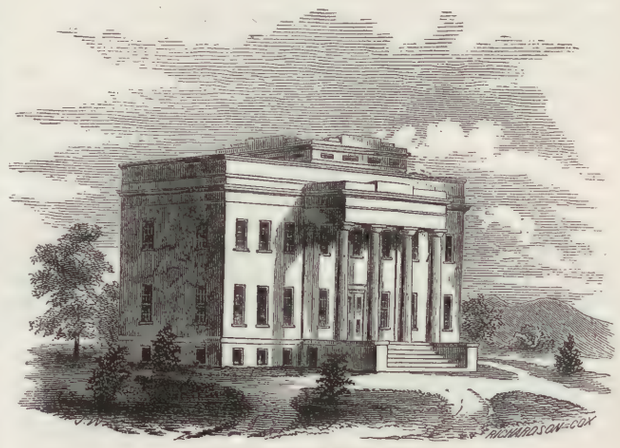
—making a total of 11,893 schools, 13,540 teachers, and 502,826 scholars, and an annual income of $1,019,258. The number of persons over 20 years of age who could not read and write was 66,020, of which number 56,958 were natives and 9,062 foreigners, and 61,030 white and 4,990 colored persons.

31. In 1855 the number of common schools was 12,012, with 21,176 teachers and 669,024 scholars; of high schools 91, with 196 teachers and 3,974 scholars; of colored schools 88, with 4,110 scholars, and of German and English schools 88, with 1,729 scholars. The whole cost of these schools in the year was $2,631,818.

32. The principal collegiate and professional institutions of the State, with a statement of their condition in 1855, are named in the following table:

Institutions.	Location.	Founded.	Professors.	Students.	Libraries.
Ohio University	Athens	1804	5	41	5,000
Miami University	Oxford	1824	8	119	6,800
Franklin College	New Athens	1824	4	85	2,200
Western Reserve College	Hudson	1826	7	27	8,500
Kenyon College	Gambier	1826	9	83	10,500
Denison College	Granville	1832	6	36	4,600
Marietta College	Marietta	1835	5	62	15,000
Oberlin College	Oberlin	1836	8	110	4,200
St. Xavier College	Cincinnati	1840	14	218	7,700
Ohio Wesleyan University	Delaware	1842	8	108	10,000
Wittenberg College	Springfield	1845	7	37	4,800
Urbana University	Urbana	1850	7	28	2,600
Antioch College	Yellow Springs	1853	12	105	4,200
Cleveland College	Cleveland	1853	7	—	—
Wilberforce University	Xenia	1855	—	—	—
Theol. (Prot. Epis.) Depart. Kenyon Col.	Gambier	1828	4	12	6,500
Lane (Presb.) Seminary	Cincinnati	1829	3	36	10,000
Theol. (Presb.) Depart. W. Reserve Col.	Hudson	1830	3	14	500
Theol. Depart. Denison College	Granville	1832	2	8	1,000
Theol. Depart. Oberlin College	Oberlin	1835	3	24	1,000
Theol. Sem. of Assoc. Reformed Church	Oxford	1839	1	12	1,500
Theol. Depart. Wesleyan University	Delaware	1844	2	41	1,000
Theol. Depart. Wittenberg College	Springfield	1845	2	8	600
Seminary (R. C.) of St. Mary's	Cleveland	—	—	—	—
St. Joseph's (R. C.) Seminary	Near Somerset	—	—	—	—
Law Depart. Cincinnati College	Cincinnati	1833	3	85	3,500
Med. Depart. Western Reserve College	Cleveland	1844	6	160	1,200
Med. College of Ohio	Cincinnati	1819	8	131	—
Western College of Homeopathy	Cleveland	1850	8	62	—
Starling Medical College	Columbus	1847	8	124	—
Eclectic Medical Institute	Cincinnati	1845	8	81	—

33. The most numerous religious denominations in Ohio are the Methodist, representing a third of the total population, the Presbyterian a fifth, and the Baptist an eighth. Next in numerical order come the Lutheran, Roman Catholic, Moravian, Congregational, Friends, Christian, Episcopal, German Reformed, and Universalist; and after them, but at a great numerical distance, the Union, Tunker, Free, Mennonite, Dutch Reformed, Jewish, Swedenborgian, Unitarian, etc. The whole number of churches in the State in 1850 was 3,936, with accommodation for 1,457,291 persons; and the value of church property was $5,793,099.



OBSERVATORY AT CINCINNATI.

34. Columbus is the State capital, and Cincinnati the commercial metropolis and largest town, not only of Ohio, but also of the whole central valley. Otherwise the State has many important and wealthy cities and towns, as Cleveland, Sandusky, and Toledo on the lake; Columbus, Dayton, Springfield, Zanesville, Newark, etc., in the interior; and Steubenville, Portsmouth, Marietta, etc., on the Ohio River.

35. Columbus, the seat of government, is situated on the left bank of Scioto River, 90 miles above its confluence with the Ohio; and in latitude 39° 57′, and longitude 83° 3′. In 1812 the vicinity was a wilderness. The State House was built in 1814, and the legislature first met here in 1816. The site on which the city is built rises gradually from the river, and is laid out in wide and commodious streets, intersecting at right angles. In the center of the city is a public square of 10 acres, in which Broad Street, 120 feet wide, and High Street, 100 feet, cross each other. All the other streets are 88 feet wide, and the alleys 33 feet. The old State House, a plain brick building, occupying one corner of the square, was entirely consumed by fire in 1852. The new Capitol is one of the most magnificent buildings of the kind in the Union. It is 304 feet long and 184 feet wide, covering an area of 55,936 square feet. The basement is 16 feet above the common surface; the height of the blocking course is 62 feet, and to the top of the rotunda 157 feet. The other remarkable buildings are the Ohio Penitentiary, a spacious and elegant structure on the river, northwest of the State House, and the asylums for the blind, the deaf and dumb, and the insane; the Starling Medical College, etc. Many of the churches and school-houses are also fine buildings, and generally the business and private houses are neat, substantial, and often elegant. Columbus is surrounded by a rich and populous country, and is an active business place, with extensive manufactures. The avenues of travel and commerce connecting the city with other parts of the State and Union are the National Road, a branch of the Ohio Canal, and several rail and other roads. Population (1820) about 1,400, (1830) 2,455, (1840) 6,048, and (1850) 17,882.



STATE-HOUSE, COLUMBUS.

36. Cincinnati, the commercial metropolis of the Ohio Valley, is situated on the right bank of that river, opposite the mouth of Licking River, and distant from Pittsburg 497, and

OHIO, INDIANA, KENTUCKY — AND — TENNESSEE



LONGITUDE WEST FROM GREENWICH.
90 89 88 87 86 85 84 83 82 81 80
LAKE MICHIGAN
WISCONSIN
Milwaukee
Racine
Waukegan
Chicago
Fulton
Clinton
Dixon
Geneva
Sterling
Yorkville
Morristown
Joliet
Princeton
La Salle
Morris
Ottawa
Cambridge
Hennepin
Crown Point
Toulon
Lacon
Kankakee
Knoxville
Pontiac
Morocco
Peoria
Metamora
Gilman
Chenoa
Middleport
Tremont
Bloomington
Ilavanna
Mason City
Clinton
Urbana
Bath
Petersburg
Decatur
Monticello
SPRINGFIELD
Jackson V.
Taylorsville
Sullivan
Paris
Charleston
Shelbyville
Terre Haute
Carlinville
Marshall
Hillsboro
Ewington
Greenup
Vandalia
Newton
Alton
Greenville
Louisville
Olney
St. Louis
Carlyle
Salem
Centralia
Vincennes
Belleville
Fairfield
Nashville
Mt Vernon
Kaskaskia
Benton
New Harmony
Evansville
Mount Vernon
Murphysboro
Marion
Perryville
Shawneetown
Jonesboro
Cape Girardeau
Thebes
Golconda
Metropolis
Cairo
Smithland
Princeton
Oldo
Madisonville
Columbus
Hickman
New Madrid
Mayfield
Murray
Benton
Cadiz
Hopkinsville
Russellville
Elkton
Greenville
Morgan T.
Bowling Green
Glasgow
Scotts V.
Tompkinsville
Burkesville
Albany
Monticello
Barbourville
Williamsburg
Cumberland Gap
Estillville
Abingdon
Bristol
Jamestown
Somerset
London
Mt Pleasant
Whitesburg
Jeffersonville
Newbern
Evansham
Lebanon
Clinch R.
Holston R.
Springfield
La Fayette
Gallatin
Carthage
Lebanon
Livingston
Jamestown
Huntsville
Tazewell
Sneedville
Rogers V.
Maynards V.
Jacksboro
Jonesboro
Taylors V.
Jefferson
Elizabethton
Wilkesboro
Dresden
Troy
Paris
Camden
Dyersburg
Trenton
Ripley
Randolph
Brownsville
Jackson
Somerville
Raleigh
Memphis
Hernando
Holly Springs
Ripley
Jacinto
Tuscumbia
Florence
Decatur
Moulton
Somerville
Guntersville
Lebanon
Rome
Kingston
Canton
Gainesville
Oxford
Panola
Pontotoc
Fulton
Lewisburg
Waynesboro
Centerville
Columbia
Shelbyville
Fayetteville
Lawrenceburg
Pulaski
Winchester
Elkton
Cleveland
Chattanooga
Stevenson
Huntsville
Bellefontaine
Trenton
Ringgold
Dalton
Ellijay
La Fayette
Dahlonega
Clarksville
Anderson
Blairsville
Clayton
Greenville
Pickens
Murphy
Asheville
Waynesville
Lincolnton
Shelby
Charlotte
Abbeville
Greenwood
Augusta
Savannah R.
Coosa R.
Tennessee R.
Cumberland Mts.
Blue Ridge
Alleghany Mountains
Black Mountain
Burnsville
Taylorville
Wilkesboro
Jefferson
Elizabethton
Jonesboro
Greeneville
Rutledge
Dandridge
Sevier V.
Marys V.
Newport
Knoxville
Kingston
Clinton
Montgomery
Cookeville
Sparta
Woodbury
McMinnville
Murfreesboro
Franklin
Centerville
Columbia
Lewisburg
Waynesboro
Lawrenceburg
Pulaski
Fayetteville
Winchester
Elkton
Shelbyville
Smithville
Lebanon
Gallatin
Carthage
Tazewell
Sneedville
Rogers V.
Maynards V.
Jacksboro
Jonesboro
Taylors V.
Jefferson
Elizabethton
Wilkesboro
Dresden
Troy
Paris
Camden
Dyersburg
Trenton
Ripley
Randolph
Brownsville
Jackson
Somerville
Raleigh
Memphis
Hernando
Holly Springs
Ripley
Jacinto
Tuscumbia
Florence
Decatur
Moulton
Somerville
Guntersville
Lebanon
Rome
Kingston
Canton
Gainesville
Oxford
Panola
Pontotoc
Fulton
Lewisburg
Waynesboro
Centerville
Columbia
Shelbyville
Fayetteville
Lawrenceburg
Pulaski
Fayetteville

from Cairo 516 miles. Latitude 39° 5′ 54″, and longitude 84° 27′. It covers an area of 4,127 acres, and is the largest inland city in America, and in population is only exceeded by New York, Philadelphia, and Baltimore. In 1795 it had scarcely 500 inhabitants, and since that year it has increased quintennially as follows:

1800	750	1815	6,070	1830	24,831	1845	74,699
1805	960	1820	9,602	1835	29,400	1850	115,436
1810	2,540	1825	13,778	1840	46,338	1853	153,643

The constituents of this population in 1853 were in the following proportions: Americans 57, Germans 26, Irish and other British 15, French and Italians 1, and other foreigners 1 per centum. Immediately adjacent are the cities of Covington and Newport, and the villages of Brooklyn, Jamestown, and Ludlow, in Kentucky; and on the Ohio side, Pendleton, Fulton, Walnut Hills, Clinton, Clifton, Fairmont, and Storrs, containing an aggregate population in the suburbs of 60,000 more.

37. Pioneers still living, more than sixty years since, with arms in their hands, disputed with the aborigines the title to the ground upon which now dwells this population of nearly a quarter of a million. It was first settled on the 26th December, 1788, by a party of men sent out under Matthias Denman and Robert Patterson, to improve a portion of the purchase made by the Hon. John Cleves Symmes. This purchase embraced a tract of 311,682 acres, lying between the Great and Little Miami rivers, and extending along the Ohio River a distance of 37 miles.



38. This party landed opposite the mouth of Licking River, and laid out a village called Losantiville, a name shortly afterward abandoned for that of Cincinnati. In February, 1789, another party, under Judge Symmes himself, landed at North Bend, and there laid out what was intended to be a large city, to which they gave the name of Symmes. The village of Cleves now occupies a portion of the site of the intended city. Soldiers were now sent out to protect the settlers at the Bend; but Fort Washington having been established, they were removed to Cincinnati subsequently, and the rivalry of the two places succumbed in favor of Cincinnati as the chief seat of business. In 1790 General Harrison marched hence against the Indians, and in the next year General St. Clair started for the same place on his ill-fated expedition. In 1792 the first church was erected on what is now corner of Main and Fourth streets, and occupied by the First Presbyterian Church. In 1793 the first paper, called the "Sentinel of the Northwest Territory," north of the Ohio River was established at Cincinnati by William Maxwell. On the 11th January, 1794, a line of two keel-boats, with bullet-proof covers and port-holes, and provided with cannon and small-arms, was established between Cincinnati and Pittsburg, each making a trip once in four weeks.

39. During this period the town progressed but slowly, while idleness, drinking, and gambling prevailed in the army, and was to some extent participated in by the citizens. The population at various periods is shown above. From 1800 to 1810 it progressed pretty rapidly, and considerable trade was carried on with New Orleans in keel-boats, which returned laden with foreign goods. The passage to New Orleans then occupied about 25 days, and the return 65 days. In 1819 the city was incorporated, since which period its progress in population and material wealth has been uninterrupted and rapid in an astonishing degree, considering the difficulties it had to contend with before the establishment of steam navigation on the rivers and railroads throughout the country.

40. The position of Cincinnati is admirable. It is in the center of a beautiful valley, surrounded by hills. It occupies the whole of the first and second planes above the Ohio River, and extends a mile over the third, or still higher elevations of Mount Adams, Mount Auburn, Mount Washington, etc. The first of these planes or tables, called the bottom, is at an elevation of 50 feet above low-water mark; the second, called the hill, about 60 feet higher, and is densely built upon, and more populous than the other two; it is elevated 541 feet above tide-water and 23 feet below the level of Lake Erie. Above this table are the hills of Mount



CITY OF CINCINNATI.

Auburn, etc., 200 feet higher. To an eye placed on these highest elevations, the city appears to occupy the center and base of an immense basin, the view being in every direction terminated by swelling hills. The grade of these planes or terraces has for years been changing to conform to the general improvement of the city, and now affords the regular and facile ascent and descent required by heavy draughts, as well as to permit the safe drainage of water from the upper tables of the city. Many of the streets are ornamented with elegant edifices and beautiful shade trees.

41. The city is regularly laid out in streets and alleys, crossing each other at right angles. The streets running east and west are denominated Water, Front, Columbia, Pearl, Third, Fourth, etc., while those running north and south are named Broadway, Sycamore, Main, Walnut, Western Row, etc. Main Street extends from the steamboat landing, on the river, northwardly to the northern bounds of the second plane. The streets are generally paved, and the foot-paths bricked. In 1853 the city contained 19,904 houses, 91 churches, 3 colleges, 5 medical schools, a law school, a female college, several female seminaries, 6 classical schools, a large number of finely-built public schools, the Mechanics' Institute, 6 chartered and 14 private banks, and 17 insurance companies, etc.; a great number of public halls, the county and city courts; the new Court House, a massive and elegant edifice, covering an area of 41,209 feet; a mercantile exchange, and numerous libraries; and literary, philosophical, and charitable institutions, an observatory, four theaters, a museum, gas-works, water-works, custom-house, etc. In fact, it has all the appliances necessary for the physical, intellectual, and moral enjoyment of a large population; and in its manufactures, commerce, and general wealth is pre-eminent among the cities of the world.

42. The manufactures of Cincinnati embrace almost every department of industrial employment. It would be impossible to enumerate them in the compass allowed to this article; but there are some industries that so distinguish the city that their enumeration is necessary. It has 6 distilleries, 140 bakeries, 12 bell and brass founderies, 82 blacksmith shops, 10 boiler yards, 15 book-binderies, 374 boot and shoe factories, 31 breweries, 60 brick-yards, 208 mason yards, 121 butchers' shops, 284 carpenter and builder shops, 24 carriage factories, 63 coopers' shops, 42 copper-plate printing establishments, 13 beef and tongue-curing establishments, 4 cutleries, 32 daguerreotype establishments, 16 domestic liquor manufactories, 15 dye-houses, 19 edge-tool factories, 14 engraving establishments, 14 feed and flour mills, 44 founderies and engine-shops, 136 furniture factories, 10 gilding establishments, 2 glass-works, 6 gunsmith shops, 40 hat factories, 14 ice-packing establishments, 5 iron rolling-mills, 3 iron safe factories, 5 iron railing factories, 10 lever lock factories, 4 lithographic establishments, 7 looking-glass factories, 22 machinist shops, 5 marble works, 6 mathematical and optical instrument factories, 10 upholsteries, 60 millineries, 7 morocco leather factories, 6 musical instrument factories, 1 castor-oil factory, 24 oil, lard, and stearine factories, 3 linseed-oil mills, 72 paint and glazing shops, 9 paper mills, 14 patent medicine factories, 7 plane factories, 1 planing machine factory, 6 platform scale factories, 6 plow factories, 16 plumbing shops, 14 potteries, 33 pork, beef, and ham-curing factories (employing 2,450 hands, and producing annually $5,760,000), 12 publishing houses, 40 saddleries, 25 sash, blind, etc., factories, 22 sausage factories, 15 saw-mills, 2 saw factories, 5 sheeting, etc., factories, 15 shirt and stock factories, 38 soap and candle factories, 7 steamboat building yards, 3 stereotype founderies, 23 stonecutting yards, 36 stone mason yards, 157 tailor establishments, 30 tanneries, 62 tobacco, cigar, and snuff factories, 30 turners' shops, 2 type founderies, 26 vinegar factories, 42 wagon factories, 40 wine manufactories, 5 wire-working establishments, 4 locomotive manufactories, etc. There are 180 several industries pursued, and the total number of all manufacturing and industrial establishments in the city was about 3,400. The total number of hands employed about 32,850, and the annual value of products $55,000,000.

43. There are few cities of the Union so well furnished with facilities of locomotion. It has one of the finest rivers in the world fronting it. Its river commerce is commensurate with the immense internal trade centering at this point, and with the daily increasing manufacturing industry of the city. It is carried on chiefly in steamboats plying hence to Pittsburg, St. Louis, New Orleans, and intermediate places. Its steamers also penetrate all the great navigable rivers of the West—tributaries of the great Father of Waters—an inland navigation of 45,000 miles, unsurpassed by any other internal navigation of the globe. The steamboat arrivals for the year ending August 31, 1853, numbered 4,058: of these, 619 were from Pittsburg, 233 from St. Louis, 254 from New Orleans, and 2,952 from other ports; and the departures were 4,146, namely, for Pittsburg 567, for St. Louis 288, for New Orleans 250, other ports 3,041. Two hundred and ninety-eight different boats arrived during the year, with an aggregate tonnage of 76,647 tons custom-house measurement. The actual tonnage of the entire number of arrivals was 1,390,541 tons.



STEAMBOAT LANDING.

44. The Miami Canal, commencing at Cincinnati, extends up the valley of the Great Miami, passes the summit at St. Mary's, thence down the Maumee valley, and terminates at Toledo, on Lake Erie. Connecting with this, at Junction, is the Wabash Canal, making an aggregate canal navigation through the valleys of the Miami, Maumee, and Wabash of 600 miles. The amount of freight transmitted on these canals from these great and productive valleys is immense, especially their heavy products. The Whitewater Canal connects the city with the eastern and central parts of Indiana, and is an important avenue of trade.

45. The table-land between the Ohio River and Lake Erie is the grand highway over which must pass the railroads from the Mississippi valley to the Atlantic cities. Most of these connect with Cincinnati, making it a principal center of the system. These works are gradually and almost imperceptibly extending the commercial enterprise of this vigorous and growing city to the remotest plains and valleys of the interior. Twenty-six railroads will bring to this mart of commerce the trade of great portions of the States of Ohio, Kentucky, Indiana, Illinois, etc., and bring within her grasp the products of more than 300,000 square miles of territory unsurpassed for productiveness. Railroad connections are now complete with New York and the principal cities of the sea-board, *via* Cleveland, and also, *via* Sandusky City, with Philadelphia, with Chicago, and every lake port from thence to Niagara, with

Albany, Indianapolis, and soon will be with Baltimore, St. Louis, Lexington, Charleston, Savannah, Mobile, and New Orleans. A second railroad is being built to Xenia, although a portion of the present railway has a double track; and a second road is also being constructed to Dayton, which passes out of the city through a tunnel 10,000 feet long, part of the way at a depth of 160 feet. Railroads are being constructed in all these directions, and when completed will built up Cincinnati, and make it a competitor for the wealth of commerce second to no other city of the world. It has already had the foretaste of its future, and is now stretching out its arms to gather in the vast, illimitable wealth with which nature has surrounded it. It has also telegraphs, giving it instantaneous communication with every large city from Maine to Florida, and from the Atlantic to beyond the Mississippi.

46. The commerce of the city has increased with unprecedented rapidity. From a supply of goods furnished by the two keel-boats and a few pack-horses, a little more than half a century since, its imports have increased for the year last named to $51,230,641, and its exports for the same period, $36,266,108.

47. In the immediate vicinity the culture of the grape is carried on to a greater extent than in any other place in the Union. In the center of a large extent of lower silurian formation, the fertile loamy and argillaceous soil on the slopes of the higher table-lands are admirably adapted to vineyards. They form a most delightful portion of the scenery on the graceful declivities of the hills. The mean annual temperature is 54.6°; of winter, 34.5°; spring, 54.6°; summer, 73.9°; autumn, 54.8°. Annual mean quantity of rain 48.33 inches, snow 19.70 inches, showing an exceedingly favorable climate for the vine. Although the culture of the vine is in its infancy here, the vintage of 1853 is estimated at 500,000 gallons, which, when bottled, will be worth $2,000,000. The wines produced are chiefly the still and sparkling Catawba, and are said to be equal to the wines of France in flavor and body.

48. Adjoining the city on the east is the large village of Fulton, and on the north the beautiful village of Walnut Hills, which is mostly occupied as country seats by persons doing business in Cincinnati. Walnut Hills is the seat of Lane Seminary, a theological institution owned by the New School Presbyterians. Four miles northwest of the city are two fine cemeteries—"Spring Grove Cemetery," containing about 220 acres, and the "Wesleyan Cemetery," containing about 40 acres.

49. Cleveland, on the shore of Lake Erie, at the mouth of Cuyahoga River, is, next to Cincinnati, the most commercial city of the State, and, with the exception of Buffalo, of the Erie coast. It has great natural facilities for trade, and is connected with the interior by the Ohio Canal and several railroads. Its harbor is good, and has been improved by piers extending into the lake. Its progress in manufactures has also been rapid, and they are now large and valuable. Steamboats are constantly plying to and from the principal lake ports. Cleveland is the seat of the Western College of Homeopathy, founded in 1850, and of the Medical Department of the Western Reserve College, founded in 1844. Population (1850) 17,034, and (1855) 41,196.



50. Chillicothe, on the Scioto and on the Ohio Canal, 45 miles from Portsmouth, at the mouth of the river, is situated on a beautiful plain, inclosed by verdant and cultivated hills. The town is regularly planned, the streets wide and lighted with gas, and bordered by handsome buildings. It is the center of trade for a fine farming region, and is steadily advancing in importance. The Marietta and Cincinnati Railroad passes through it, on the one side giving it access to immeasurable coal-fields, and on the other with the great mart of commerce. Within its own limits it has immense water-power. It was the State capital until 1810, and the old State House is now used for county purposes. Population (1850) 7,100. Circleville, also on the Scioto, 20 miles above Chillicothe, occupies the site of an old circular fortification, and is surrounded by a highly fertile country. The town has various mills and factories, and a large trade which is facilitated by the Cincinnati, Wilmington and Zanesville Railroad and the Ohio Canal, both of which pass through the town. Population (1850) 3,411.

51. Dayton, at the confluence of Mad River with the Miami, and on the Miami Canal, is the fourth city of the State in population and importance. It is the center of six railroads and nine macadamized roads, which connect it with all parts and create for it an immense commerce. The city is laid out in wide streets and contains many elegant buildings, its courthouse, of white marble, being perhaps the finest in the West. It has about 20 churches and numerous academies and schools. The streets and stores are lighted with gas. Its manufactures, chiefly worked by water-power furnished by a hydraulic canal, are extensive, consisting of railroad machinery, cars, paper, and hollow-ware, cotton and woolen goods, oil, flour, etc. In the vicinity are limestone quarries, which furnish building material for Cincinnati and other cities. Population (1830) 2,954, (1840) 6,067, (1850) 10,977, and (1853) 16,562.

52. Hamilton, on the Miami River and Canal, and the Cincinnati, Hamilton and Dayton Railroad, 25 miles north Cincinnati, is a prosperous manufacturing and trading town, with extensive flour, paper, iron, and other works. On the opposite side of the river is the pleasant village of Rossville. Population (1850) 3,210.

53. Newark is situated at the confluence of the forks of Licking River and on the Ohio Canal, 37 miles east Columbus. It is one of the most flourishing towns of the State, and is rapidly progressing in business and manufactures. The Central Ohio Railroad passes through it, and is here intersected by the Sandusky, Mansfield and Newark Railroad, and also the railroad being built from Portsmouth. In the vicinity are sandstone quarries and mines of cannel coal. Population (1850) 3,654.

54. Portsmouth, on the Ohio, immediately above the mouth of the Scioto, is the south terminus of the Ohio Canal and of the Scioto and Hocking Valleys Railroad, 92 miles south Columbus. It is a place of large business, and has regular steamboat communication with Cincinnati and other river ports. Iron ore, coal, and building-stone are abundant in the vicinity, and the town has considerable manufactures. Population (1850) 4,011.

55. Sandusky is eligibly situated on Sandusky Bay, three miles from Lake Erie and 60 miles west Cleveland, in latitude 41° 27′, and longitude 82° 45′. The bay, which is 20 miles long and from 5 to 6 miles wide, forms a capacious and easily approached harbor, with an average depth of 12 feet. The city stands on ground gradually rising from the shore and commands a beautiful view of the water, enlivened during the navigation season by vessels of all kinds going and coming with their rich freights. It is one of the great commercial ports of the lake, and the entrepôt of a vast and constantly increasing trade, with railroads diverging from it east and west and south. The total of imports in 1852 was $40,896,085, and of exports $18,789,814, and these amounts are annually increasing. Population (1850) 5,087.

56. Springfield, on the Mad River, where it is crossed by the National Road, is a beautiful town, and surrounded by a populous and highly cultivated country. Railroads radiate from it in five directions, and also six macadamized roads, which make it a great trade center. In the city and vicinity there are large industrial establishments, manufacturing cotton, wool, paper, ironware, machinery, etc., and extensive flouring mills, which are driven by water-power, abundantly supplied by Mad River and Lagonda Creek, which here joins it. It is the seat of Wittenberg College, founded by the Christian denomination in 1845. Population 5,108. Tecumseh, the famous Indian warrior, was born about five miles west of Springfield.

57. Steubenville is a flourishing town on the Ohio, 24 miles above Wheeling and 42 miles west Pittsburg. It is the center of an extensive trade and the seat of flourishing manufactures. In the vicinity are inexhaustible coal-fields. This important town has now diverging from it railroads east and west, and north and south, and an extensive steamboat connection. Population (1850) 6,140.

58. Toledo, on the Maumee, four miles from its mouth, is one of the most flourishing entrepôts of the commerce of the lakes. Latitude 41° 39′ 30″, and longitude 83° 32′—distant by railroad from Cleveland 109 miles, from Detroit 67 miles, from Chicago 243 miles, from St. Louis 460 miles, and from Cincinnati 187 miles. It has also steamboat connection with the principal lake ports; and is the northern terminus of the Miami and Wabash and Erie canals, by which it drains immense and fertile regions extending south to Cincinnati and west and southwest to Evansville on the Ohio. The total value of its imports in 1852 was $37,565,029, and of its exports $19,738,923. Toledo extends along the river for more than a mile, and consisted originally of two settlements, called Port Lawrence and Vistula, and still distinguished as the upper and lower landing. It was incorporated in 1836; in 1840 it contained 1,322 inhabitants; in 1850, 3,829, and in 1853, 6,412.

59. Zanesville is an important town on the Muskingum, 30 miles from its mouth and opposite the confluence of the Licking. The Cincinnati, Wilmington and Zanesville and the Cleveland, Zanesville and Cincinnati railroads here connect and are crossed by the Central Ohio Railroad, 59 miles east Columbus. Latitude 39° 57′, and longitude 80° 57′. It is situated on the left bank of the river, which is navigable and flows through a rich and populous valley. The streets are regular and wide and lighted with gas. Its natural advantages for a large trade are multiform, and have been so liberally improved that it has become one of the greatest interior towns of the State. Steamboats ascend the river from the Ohio. It has also eminent manufacturing capabilities from its immense water-power and its coal beds. Its manufactures are ironware, machinery, paper, glass, woolen goods, flour, etc. The river is here crossed by a fine iron bridge, 538 feet long, over which passes the Central Ohio Railroad. Bridges also connect it with its suburbs, South Zanesville, West Zanesville, Putnam, etc. In 1810 it was made the seat of government and remained so until the removal to Columbus, in 1812. Population (1850) 7,929, and with its suburbs about 10,000.

60. Ohio has besides these a large number of other important towns. The principal of these with their population in 1850 are noted in the following table:

Akron	3,266	Elyria	1,482	Marietta	3,175	Pomeroy	1,638
Ashtabula	821	Findlay	1,256	Marion	1,311	Putnam	1,383
Athens	898	Fremont	1,464	Maumee	1,465	Sidney	1,302
Bellefontaine	1,222	Gallipolis	1,686	Mt. Vernon	3,711	Somerset	1,240
Cadiz	1,144	Hillsboro'	1,392	New Philadelphia	1,418	Tiffin	2,718
Canton	2,603	Lancaster	3,453	Norwalk	1,437	Troy	1,956
Delaware	2,074	Lebanon	2,088	Oxford	1,716	Urbana	2,020
Dresden	1,448	McConnellsville	1,643	Perrysburg	1,199	Wilmington	1,298
Eaton	1,346	Mansfield	3,175	Piqua	3,277	Xenia	3,024

61. The French from Canada were the first visitors to the valley of the Ohio, but within the limits of this State established no settlements. The first permanent European settlement was made in 1788 at Marietta. In July, 1787, Congress established the "Territory Northwest of the Ohio." In 1799 this territory was divided, and the country now composing the State of Ohio was formed into a separate government. On the 30th April, 1802, Congress passed a law enabling the people to frame a constitution and State government, and on the 29th November, 1802, Ohio was admitted into the Union.

STATE OF INDIANA.



1. Indiana is situated between latitudes 37° 51′ and 41° 46′ north, and longitudes 84° 49′ and 88° 02′ west; and is bounded on the north by the Lake and State of Michigan, on the east by Ohio, on the south by Kentucky and the Ohio River, and on the west by the Wabash River and Illinois. It has an extreme length, north and south, of 276 miles, and a width of about 140 miles. The area is 33,809 square miles or 1.15 per cent. of the total surface of the United States.

2. The general features of Indiana are those which pertain to all countries where mountain, in the strict sense of the word, is wanting, for, if we except the river-hills and the accumulations of sand on the southern shore of Lake Michigan, no portion of the country has any

continuous or definite culmination, and all of mountain that really appears are a few isolated "knobs," which serve only to diversify the scenery. Nearly two thirds of the State are level, or at most undulating, and a most singular feature of the country is the absence of any water-shed or dividing ridge, such as almost every geographical region presents, from which the waters flow in different directions; still, however, the country has continuous slopes of great extent, and the difference of elevation of the highest land and the Ohio River at the falls is nearly 600 feet, and a considerable difference is observed (about 70 feet) between the levels of the Ohio, at the falls, and at the mouth of the Wabash, the latter being the lowest.

3. The river-hills, of which previous mention has been made, extend at various distances from, and parallel to, the courses of the Ohio and other streams, and inclose what are termed the bottom lands, which are chiefly rich alluvions, and thickly set with forests. These hills, along the Ohio River, are generally as high as the highest levels of the interior, often of a rugged and broken aspect, and where torn through by the tributaries of the Ohio, present much imposing scenery. Behind these a table-land spreads out and forms what may with propriety be termed the interior of the country, and now every feature is changed. Instead of the bottoms, with their mighty forests, the most varied landscape appears—here are extensive growths of oak, ash, and other trees, and there vast prairies, and in other parts the surface is undulating and occasionally rises into hills from 100 to 300 feet high. There is such a marked difference, however, between the several parts of the country, that no general description could embrace its topography.

4. The Ohio valley, including that of the Whitewater, contains some 5,500 square miles; this is a limestone region, and was originally clothed with heavy forests. The hills are abrupt and broken, and the numerous tributaries of the Ohio break through them in every direction. Many of these streams in dry weather show only the marks where the torrents have disappeared almost as soon as the storms that occasioned them. Of this division of the State, about two thirds are good farming lands, and the residue either too hilly or the soil too poor for profitable cultivation. The poorest part is at the flats, at the heads of the streams.

5. The White River valley extends from the Wabash centrally through the State to the Ohio line, and covers about 9,000 square miles of surface. It is almost uniformly level and heavily timbered, except in the western parts, where there are some prairies and barrens, and ranges of low, rugged hills. The whole valley is destitute of rock, and the soils are of the richest kind, with little that is unprofitable. Most of the streams are clear and never-failing, and water-power abundant.

6. The Wabash valley is the largest division, and embraces an area of upward of 12,000 square miles. It interlocks with the valley of the White River, and the eastern portion resembles it. It is equally fertile, but more broken. The middle part of the valley has abundant water-power. From the river-hills of the Ohio to the Wabash the surface is an inclined plane, and it is not a little curious to find streams, the head waters of which are near the borders of the Ohio valley, traversing to the Wabash, a river so much farther distant from their sources.

7. The north part of the State, watered by the St. Joseph's and the Kankakee, is much similar in its general character to the Wabash country, but is perhaps more swampy, and near Lake Michigan the country has extensive sand-hills, which are covered only with stunted and shriveled pines and burr-oaks.

8. Indiana has many fine rivers, but few of them are eligible for navigation. The Ohio, the final recipient of the principal water-courses, borders the State on the south from the Miami to the Wabash, a distance by the river's course of 380 miles. Laughery, Indian Kentucky, Silver, Indian Blue, Anderson, Big Pigeon, Little Pigeon, etc., are its principal tributaries between these points, yet none of them are of large capacity. The Whitewater joins the Miami six miles above its entrance into the Ohio.

9. The Wabash, which rises in Ohio, runs a devious course of about 600 miles, and is navigable for about half its length. Its principal affluents are—from the north and east, the Salamonie, Mississinewa, Wild Cat, Sugar or Rock, Raccoon, White, and Patoka rivers; and from the west and north, Little Wabash, and Embarras rivers, in Illinois, the Vermillion in both States, and in Indiana altogether, Tippecanoe, Eel, and Little rivers. White River, the most important of these, empties into the Wabash, 100 miles above its mouth; the West Fork, its longest branch, rises near the Ohio line, and runs in a southwest direction, receiving in its course Eel River, Fall Creek, etc.; and the East Fork, the principal feeders of which are Salt Creek, the Muscatatuck, Sand Creek, Clifty, Flat Rock, and Sugar creeks, rises in Ripley County, and has a western course to its union with the West Fork—the two forming White River proper, about 50 miles above its entrance into the Wabash.

10. The St. Joseph's and St. Mary's form the Maumee River, which passes to Ohio and Lake Erie. Another St. Joseph's and its tributaries, the Elkhart, etc., pass into Lake Michigan. The Kankakee, the principal branch of the Illinois, runs sluggishly through the northwestern counties for 100 miles, and in its course receives Yellow River, a stream about 50 miles long. Extensive marshes everywhere bound its course. Deep and Calumet rivers lie near and south of Lake Michigan, and in some places are only separated from it by banks of sand. The Iroquois or Pickamink rises south of the Kankakee, and runs nearly parallel to it for 50 miles, and joins it in Illinois.

11. Besides Lake Michigan on the northern border, there are numerous other, but small, lakes in different parts of the State, principally to the north of Wabash River. Several of them have no outlets; they are generally clear, however, and have sandy shores and bottoms. They seldom exceed a few acres in extent, though some, at the head of the Tippecanoe River and Turkey Creek, and near La Porte, cover several hundred acres—the largest, Beaver Lake, has a surface of 10,000 acres. All abound in fish, and have rich and pleasing scenery.

12. Three geological formations exist in Indiana: a bituminous coal formation, occupying that portion of the State west of the second principal meridian; a limestone formation, prevailing in the counties east of that meridian; and a diluvium, consisting of deposits of clay, sand, gravel, and boulders, overlying and in many places covering up the two other formations to a greater or less depth, particularly in the northern districts. Iron, lead, antimony, manganese, zinc, cobalt, bismuth, and arsenic are the principal metals found in the State, and silver, in the form of a sulphuret, has been discovered in the west; building stone and slate of every variety are abundant, and clays useful in the arts are extensively distributed. The coal beds in the west are very valuable and numerous; salt springs are found on the eastern edge of the coal formation. The fertility of the soil is universally admitted.

13. The forests of Indiana contain all the trees natural to the soil and climate of the whole central region of the United States. Oaks and beech-trees, however, preponderate, and probably count two thirds of the whole. Next in order are the sugar-tree, hickory, ash, walnut, poplar, elm, sycamore, cherry, hackberry, maple, etc. Of the smaller trees and undergrowths, the principal are dogwood, papaw, spear, plum, and thorn, and the persimmon and crab-apple. Many of the forests trees attain magnificent dimensions; and in most parts oak and beech mast is found in such quantities as to contribute largely to feeding and fattening hogs.

14. In 1850 Indiana contained 988,416 inhabitants, comprised in 171,563 families, and occupying 170,178 dwellings. This is equivalent to 29.24 inhabitants to the square mile, or 4.26 per cent. of the total population of the Union. Its distribution into the counties was as follows:

Counties.	Population.	County Seats.
Adams	5,797	Decatur.
Allen	16,919	Fort Wayne.
Bartholomew	12,428	Columbus.
Benton	1,144	Oxford.
Blackford	2,360	Hartford.
Boone	11,631	Lebanon.
Brown	4,846	Nashville.
Carroll	11,015	Delphi.
Cass	11,021	Logansport.
Clark	15,828	Charlestown.
Clay	7,944	Bowling Green.
Clinton	11,869	Frankfort.
Crawford	6,524	Levenworth.
Daviess	10,352	Washington.
Dearborne	20,166	Lawrenceburg.
Decatur	15,107	Greensburg.
De Kalb	8,251	Auburn
Delaware	10,843	Muncietown.
Dubois	6,321	Jasper.
Elkhart	12,690	Goshen.
Fayette	10,217	Connersville.
Floyd	14,875	New Albany.
Fountain	13,253	Covington.
Franklin	17,968	Brookville.
Fulton	5,982	Rochester.
Gibson	10,771	Princeton.
Grant	11,092	Marion.
Greene	12,313	Bloomfield.
Hamilton	12,684	Noblesville.
Hancock	9,698	Greenfield.
Harrison	15,286	Corydon.
Hendricks	14,083	Danville.
Henry	17,605	New Castle.
Howard	6,657	Kokomo.
Huntington	7,850	Huntington.
Jackson	11,047	Brownstown.
Jasper	3,540	Rensselaer.
Jay	7,047	Portland.
Jefferson	23,916	Madison.
Jennings	12,096	Vernon.
Johnson	12,101	Franklin.
Knox	11,084	Vincennes.
Kosciusko	19,243	Warsaw.
La Grange	8,387	La Grange.
Lake	3,991	Crown Point.
La Porte	12,145	La Porte.
Lawrence	12,097	Bedford.
Madison	12,375	Anderson.
Marion	24,103	INDIANAPOLIS.
Marshall	5,348	Plymouth.
Martin	5,941	Dover Hill.
Miami	11,304	Peru.
Monroe	11,286	Bloomington.
Montgomery	18,084	Crawfordsville.
Morgan	14,576	Martinsville.
Noble	7,946	Albion.
Ohio	5,308	Rising Sun.
Orange	10,809	Paoli.
Owen	12,106	Spencer.
Parke	14,968	Rockville.
Perry	7,268	Rome.
Pike	7,720	Petersburg.
Porter	5,234	Valparaiso.
Posey	12,549	Mount Vernon.
Pulaski	2,595	Winnimac.
Putnam	18,615	Green Castle.
Randolph	14,725	Winchester.
Ripley	14,820	Versailles.
Rush	16,445	Rushville.
Scott	5,885	Lexington.
Shelby	15,502	Shelbyville.
Spencer	8,616	Rockport.
Stark	557	Knox.
Steuben	6,104	Angola.
St. Joseph's	10,954	South Bend.
Sullivan	10,141	Sullivan.
Switzerland	12,932	Vevay.
Tippecanoe	19,377	La Fayette.
Tipton	3,532	Tipton.
Union	6,944	Liberty
Vanderburgh	11,414	Evansville.
Vermillion	8,661	Newport.
Vigo	15,289	Terre Haute.
Wabash	12,138	Wabash.
Warren	7,387	Williamsport.
Warrick	8,811	Booneville.
Washington	17,040	Salem.
Wayne	25,320	Centreville.
Wells	6,152	Bluffton.
White	4,761	Monticello.
Whitley	5,190	Columbia.

—of the total population, 977,154 (98.86 per cent.) were white persons—506,178 males and 470,976 females, and 11,262 (1.14 per cent.) were free colored persons—5,715 males and 5,547 females; and of the whole 931,392 (94.42 per cent.) were Americans, of which number 541,079 were born in the State; 54,426 (5.51 per cent.) were foreigners, and 2,598 were of unknown origin.

15. The total population of Indiana in 1800 was 4,875; in 1810, 24,520; in 1820, 147,178; in 1830, 343,031; in 1840, 685,866; and in 1850 (as above) 988,416. In 1855 the population was estimated at 1,198,733.

16. The occupations of 248,696 males over 15 years of age in 1850 were as follows: 45,318 in commerce, trade, manufactures, mechanic arts, and mining; 163,229 in agriculture; 29,854 in labor not agricultural; 1,725 in sea and river navigation; 4,229 in law, medicine, and divinity; 3,031 in other occupations requiring education; 677 in government civil service; 184 in domestic service, and 449 in pursuits not specified.

17. The number of farms in Indiana in 1850 was 93,896, and these inclosed 12,893,422 (improved 5,046,543 and unimproved 7,746,879) acres of land. The whole were valued at $136,385,173, and the value of implements and machinery thereon was $6,704,444.

18. The quantity of livestock* in the State in 1840 and 1850 was and consisted of—

1840	horses, mules, etc.,	211,036	neat cattle,	619,980	sheep,	675,982	swine,	1,623,608
1850	" "	320,898	"	714,666	"	1,122,493	"	2,263,770

—and in 1850 the stock was valued at $22,478,555, and the value of animals slaughtered in 1849–50 was $6,567,935. The products of animals consisted of—butter 12,881,535, cheese 624,564, and wool 2,610,287 pounds. In 1850 the mules and asses numbered 6,599, the milch cows 284,554, and the working oxen 40,221, all included in the above aggregates.

19. The grain crops (bushels)† of 1840 and 1850 comparatively were as follows:

1840	wheat,	4,049,375	rye,	129,621	oats,	5,981,605	Indian corn,	28,155,887	barley,	28,015	buckwheat,	49,019
1850	"	6,214,458	"	78,792	"	5,655,014	"	52,964,363	"	45,483	"	149,740

—making a total in 1840 of 38,393,522 and in 1850 of 65,087,973 bushels.

20. And among other agricultural products returned in the census of 1850 were the following: hay 403,230 tons, hops 92,796 pounds, clover-seed 18,320, and other grass-seed 11,951 bushels, peas and beans 35,773 bushels, beeswax and honey 935,329 pounds, flax-seed 36,888 bushels, flax 584,469 pounds, maple-sugar 2,921,192 pounds, molasses 180,325 gallons, ginned cotton 14 bales of 400 pounds, tobacco, 1,044,620 pounds, silk cocoons 387 pounds, and wine 14,055 gallons. The value of market-garden products in 1850 was $72,864, and of orchard products $324,940.

21. In 1850 Indiana had 4,288 establishments engaged in manufactures, mining, and the mechanic arts. These employed an aggregate capital of $7,941,602 and 14,342 hands; consumed in the year raw material to the value of $10,214,337, paid for labor $2,809,116, and produced goods to the value of $18,922,651. Among the principal establishments are noted two cotton mills with a capital of $43,000; 33 woolen mills with $171,545; 20 iron works with $171,900; 59 distilleries and breweries with $359,450, and 358 tanneries with $514,897. The principal seats of manufactures are Madison, New Albany, Cannelton, Indianapolis, etc. In 1810 the annual value of manufactured products (including goods made in families) was $264,890, in 1820, $397,814, in 1830 (no returns), in 1840, $9,379,586, and in 1850, $20,553,690. In 1840 the value of home-made manufactures produced was $1,289,802, and in 1850, $1,631,039.

22. Indiana has no direct foreign commerce; but it has a large domestic and transit trade.

* On the 1st June, 1855, as follows—horses, mules, and asses 304,028, value $13,657,874; neat cattle 798,419, value $7,578,200; sheep 882,797, value $937,370; and swine 2,668,572, value $5,514,098.

† Crops included in the assessments of 1855—viz., wheat 6,658,952, corn 34,811,902, rye 226,559, oats and barley 8,132,786, and potatoes 1,170,000 bushels; hay 422,280 tons; wool 1,396,544 pounds; garden products $259,273, and orchard products $435,122; home manufactures $2,373,674, etc. The quantity of land assessed for taxes was 19,599,936 acres.

Its principal exports are agricultural products. On Lake Michigan the only outlet is at Michigan City; on Lake Erie, Toledo and Sandusky, in Ohio. The chief shipping ports on the Ohio River are Lawrenceburg, Madison, Jeffersonville, New Albany, and Evansville, and beyond the State, Cincinnati. Railroads from each of these places stretch to the interior, and meet at Indianapolis, in the center of the State. Railroads also stretch east and west, and with their external connections form great through lines of commerce between the sea-board and the most western range to which railroads have been built. In the Wabash and Erie Canal, Indiana has one of the longest waterways in the world—it extends from Toledo to Evansville, 467 miles. The Whitewater Canal, in the southeast section of the State, has a length of 75 miles. The length of railroad in operation in 1855 was about 1,600 miles. The shipping owned in the State in 1855 amounted to 3,698 tons, all engaged in steam navigation.

23. The number of banks and branch banks in Indiana in November, 1850, was fourteen, with an aggregate capital of $2,082,950, and in 1855 forty-six, with $4,045,325. At the first period the only institutions of this kind were the State bank and its branches; at the latter periods the same and a number of others organized under the free banking law of the State. The assets of these at the two periods consisted of—loans and discounts $4,395,099 and $6,996,992, stocks (1855) $1,705,070, real estate $364,233 and $231,929, other investments $108,485 and $132,946, due by other banks $845,062 and $1,274,992, notes of other banks $224,842 and $598,262, specie funds (1855) $369,600, and specie $1,197,880 and $1,599,014; and the liabilities were—circulation $3,422,445 and $4,516,422, deposits $630,325 and $1,957,097, due to other banks $112,175 and $379,804, and other liabilities (1855) $161,175.

24. The government of Indiana is based on the constitution of 1851. By this instrument the right of voting is conferred on every white male citizen of the United States 21 years of age, and who has resided in the State six months next preceding an election. No negro or mulatto can vote. Elections by the people are by ballot, and those by the general assembly *viva voce*. General elections are held on the 2d Tuesday of October.

25. The general assembly consists of a senate of 50 members elected for four years, one half the number every second year, and of a house of representatives of 100 members elected for two years. Members of both houses must be citizens of the United States, and have resided in the State two years, and in the district from which elected one year. The legislative sessions are biennial, and commence on Thursday next after the first Monday of January, and no regular session can be prolonged beyond 60 days, and no special session beyond 40 days. Representation is apportioned according to a census of all white males over 21 years of age taken for such purpose every six years.

26. The governor is chosen by a plurality of votes for four years. He must be at least 30 years of age, and have resided in the State five years. His term commences on the second Monday of January. The lieutenant-governor, elected in the same way and for the same term, is *ex officio* president of the senate, and in case of disability or the death of the governor succeeds him in office. The secretary of state, the state auditor, and state treasurer are elected by the people for two years, and are required to reside at the capital during their term of office.

27. The judiciary consists of a supreme court, thirteen circuit courts, forty-four district or common pleas courts, etc. The supreme court consists of four justices chosen from districts by the people at large for six years. Circuit court judges are elected by the people of their respective circuits for six years, and judges of common pleas in districts for four years.

28. The officers elected by the people in each county are a clerk of the circuit court, auditor, recorder, treasurer, sheriff, coroner, and surveyor—the three first for four years and the others for two years. Justices of the peace are elected by the people of each township for four years.

29. The revenue is derived chiefly from general tax, sales of swamp lands, proceeds of the school fund, tolls on Wabash and Erie Canal, poll tax, etc. The total resources of the treasury in the year ending with October, 1850, amounted to $1,861,384, and 1855 to $2,168,315, and the expenditures for the two years to $1,513,534 and $1,700,091. The State debt amounted in 1855 to $7,338,473. In 1850 the value of taxable property in the State was $152,870,399, and in 1855, $280,648,554. The State tax for 1855 was $643,643, the county tax $969,242, the road tax $142,972, the school tax $369,842, the sinking fund tax $56,002, and the township tax $194,226—total tax on the grand list $2,830,606.

30. The principal institutions supported wholly or in part by the State are the Asylum for the Deaf and Dumb, the Institute for the Blind, and the Hospital for the Insane, at Indianapolis, and the State Prison at Jeffersonville, and many appropriations are made for the support of a State Board of Agriculture, and for the colonization of the free blacks.

31. The whole number of children returned as attending school in 1850 was 220,961 or one to every 4.49 of the total population. The condition of the schools on the 1st June of that year is given in the following table:

Classification.	Number.	Teachers.	Scholars.	Income.
Primary and public schools	4,822	4,860	161,500	$316,955
Academies and private schools	131	283	6,185	63,520
Universities and colleges	11	61	1,069	43,350

—making a total of 4,964 schools; 5,154 teachers, and 168,754 scholars, and an annual income of $423,825. The number of persons over 20 years of age unable to read and write was 72,710, of which number 70,540 were white and 2,180 free colored persons, and 69,445 were natives and 3,265 foreigners. In 1855 the number of children attending the common schools was 161,536. The school fund in the year last named amounted to $2,559,308.

32. The chief collegiate and professional schools in the State in 1855 were the following:

Institutions.	Location.	Founded.	Professors.	Students.	Libraries.
Indiana State University	Bloomington	1816	6	231	4,500
Hanover College	Hanover	1832	6	100	5,400
Wabash College	Crawfordsville	1834	7	43	6,800
Indiana Asbury University	Greencastle	1837	8	122	4,200
University of Notre Dame	South Bend	1842	14	—	—
Hartsville University	Hartsville	1850	8	—	—
Indiana Theol. Seminary	Hanover	1832	2	15	4,000
Theol. Depart. Hanover Col	Hanover	1853	—	—	—
Theol. Depart. Asbury Univer.	Greencastle	1852	2	29	2,500
Ecclesiastical (R. C.) Seminary	Vincennes	—	—	—	—
Theological (Presb.) Seminary	New Albany	—	—	19	—
Law Depart. Ind. State Univ.	Bloomington	—	2	18	—
Law Depart. Ind. Asbury Univ.	Greencastle	—	1	—	—
Indiana Medical College	La Porte	—	—	—	—
Ind. Central Med. College	Indianapolis	—	—	—	—

33. The most prominent religious denominations in the State are the Methodist, Baptist, and Presbyterian, which together include three fourths of the total population. The next most numerous of the denominations are the Christian and Friends; and then the Roman Catholic, Lutheran, and Moravian. The Episcopal scarcely includes one per cent. of the whole. The whole number of churches in the State in 1850 was 2,032 with accommodation for 709,655 persons, and the value of church property was estimated at $1,529,585.

34. Indianapolis, the seat of government, is situated on the west fork of White River, immediately below the mouth of Fall Creek, and near the geographical center of the State, in latitude 39° 55′, and longitude 86° 5′. It is the terminus of eight railroads, coming in from Dayton, 108 miles; Cincinnati, 110 miles; Madison, 87 miles; Jeffersonville, 108 miles; Terre Haute, 73 miles; Lafayette, 64 miles; Peru, 73 miles; and Union City, 84 miles; and these, with their connections, give it access to every town north of the Ohio, and to the utmost limits of railroad extension east and west. A railroad is also being constructed on an air-line to Decatur, Ill., 143 miles. By pre-eminence it is called the "Railroad City." The streets are at right angles with each other; Washington, through which the National Road passes, the principal street of the city, is 120 feet wide, and the others are from 80 to 90 feet. The State House, modeled after the Parthenon, is a handsome structure, 180 feet by 80 feet, with 10 Doric columns on each front, and cost $60,000. The Governor's House is near the center of the city, and is a fine four-fronted building, standing on a natural mound 60 feet high, and circumscribed by Circle Street, and from this also diverge four diagonal streets in the direction of the several corners of the city plot. The other public buildings are its spacious market-houses, its elegant and substantial churches, its fine hotels, bridges, depôts, etc. The city was founded in 1820 and in 1825 became the seat of government. In 1830 it contained only 1,085, and in 1840 only 2,692 inhabitants; in 1850 it had 8,094.



STATE-HOUSE, INDIANAPOLIS.

35. Attica, on the Wabash River and Canal, and on the Toledo, Wabash and Western Railroad, 19 miles from the Illinois line, is a thriving village of 1,500 inhabitants, and has a large trade in agricultural produce. A railroad is also about to be built to Terre Haute; Bedford is a handsome town on the New Albany and Salem Railroad, 81 miles northwest New Albany, and in 1850 had 962 inhabitants; Bloomington, on the same road, 96 miles from New Albany, is the seat of the Indiana State University, and in 1850 had 1,305 inhabitants; Brookville is a town of 1,177 inhabitants, situated at the confluence of the forks of Whitewater River, and is a place of considerable manufactures, and of a large trade facilitated by the Whitewater Canal; Cambridge City, on the Whitewater River and Canal, where they are crossed by the Indiana Central Railroad, is a place of active business, and in 1850 contained 1,217 inhabitants; Centerville is a thriving town on the Central Railroad, 62 miles east Indianapolis. It is the seat of a female college. Population 920; Columbus, on the east fork of White River, and on the Madison and Jeffersonville railroads, 42 miles south-by-east Indianapolis, had (1850) 1,008 inhabitants. A railroad has also been built from this town to Shelbyville, 23 miles; Corydon, on Indian Creek, 116 miles south Indianapolis, was formerly the State capital; Covington, on the Wabash River and Canal, 73 miles west-northwest Indianapolis, has a large trade in grain, and the vicinity abounds in coal and iron. Population (1850) 1,176; Crawfordsville is situated on Sugar Creek, and on the New Albany and Salem Railroad, 28 miles south Lafayette. It is surrounded by a fertile country, well timbered, and abounding in stone-coal. The town is well built and contains several excellent institutions, among which is Wabash College. Population 1,513.

36. Evansville, on the Ohio, 188 miles from its mouth, is a port of entry, and one of the principal commercial towns of the State. It is the southern terminus of the Evansville and Crawfordsville Railroad and of the Wabash and Erie Canal. Population (1850) 3,235; Lamasco, a village of 1,441 inhabitants, adjoins Evansville on the northwest. Both places have been largely advantaged by the completion of the works above named, and together contained in 1855 about 10,000 inhabitants.

37. Fort Wayne is an important city at the confluence of the St. Joseph's and St. Mary's branches of the Maumee, on the Wabash and Erie Canal and on the Toledo, Wabash and Western Railroad, here crossed by the Pittsburg, Fort Wayne and Chicago Railroad, 94 miles west-by-south Toledo. A large number of other railroads are in progress which will terminate here or intersect the town. Its facilities for commerce, indeed, are unrivaled for an inland town, and are rapidly raising it to the position of a first-rate city. The site was formerly occupied by an Indian village, and from 1794 by Fort Wayne, which continued to be a military post till 1819. In 1841 the Indians of this vicinity were removed beyond the Mississippi, and the trading post soon after became a flourishing entrepôt. In 1850 it contained 4,282 inhabitants, and in 1855 the population was estimated at 10,000.

38. Greencastle is a thriving town on the Terre Haute and Richmond Railroad, which is here crossed by the New Albany and Salem Railroad, 39 miles west Indianapolis. It is beautifully situated on a high plain in a rich farming country, and is the seat of the Indiana Asbury University, founded by the Methodists. This institution has also law and divinity schools. Population (1850) 1,382; Hagerstown is a thriving town at the head of Whitewater Canal, and a place of active trade. The Cincinnati and Chicago Railroad passes through it, 16 miles east of Richmond. Population (1850) 606; Jeffersonville is situated on the Ohio, nearly opposite Louisville, and above the falls. It is the seat of the State Prison. The Jeffersonville Railroad from Indianapolis terminates here. Population (1850) 2,122.

39. Lafayette is situated on the Wabash River and Canal, and on the Toledo, Wabash and Western Railroad, which is here joined by the Lafayette and Indianapolis Railroad, 64 miles

northwest Indianapolis. It is one of the largest towns on the canal, and the fourth or fifth in the State. In 1850 it had 6,129 inhabitants; La Porte, in the northwest, is a thriving town on the Northern Indiana Railroad, which is here joined by the Cincinnati, Peru and Chicago Railroad, 12 miles from Lake Michigan. It is a place of active trade, and is the seat of the Indiana Medical College; Lawrenceburg is a commercial town on the Ohio, 22 miles below Cincinnati. It is the south terminus of the Whitewater Canal and of the Indianapolis and Cincinnati Railroad. The Ohio and Mississippi Railroad also passes through it. These works have greatly benefited the town, which is rapidly increasing in wealth and importance. Population (1850) 2,651; Logansport is a flourishing town on the Wabash River and Canal, and on the Toledo, Wabash and Western Railroad, where it is crossed by the Cincinnati and Chicago Railroad, 39 miles east Lafayette. It is the trade center of a wide and fertile region, and has within itself several industrial establishments. West Logansport is separated from the town by Eel River, but is within its corporate limits.

40. Madison is the largest river town of Indiana, and is important as a trading port. It is situated about 90 miles below Cincinnati, and by railroad 86 miles southeast Indianapolis. It has large pork-packing houses, and also machine shops and other industrial establishments. The town is well built and the streets paved and lighted with gas. It was first settled in 1808. In 1840 it had 3,798, and in 1850, 8,012 inhabitants.

41. Michigan City is the only lake port of the State. It is the terminus of the New Albany and Salem Railroad, and the Michigan Central Railroad passes through it. It is little used as a port. In 1850 it contained 999 inhabitants, and in 1853, 2,353.

42. New Albany is situated on the Ohio two miles below the falls, and nearly opposite Portland. It is the southern terminus of the New Albany and Salem Railroad, which extends hence to Michigan City, 288 miles. Next to Madison it is the chief port of the State, and in 1850 had 8,181 inhabitants. The town is handsomely built, and has extensive manufactures of iron, brass, bagging, etc., and is also engaged in steamboat building.

43. Peru is a flourishing town on the Wabash River and Canal, and the northern terminus of the Peru and Indianapolis Railroad, which here connects with the Toledo, Wabash and Western Railroad, 74 miles north Indianapolis. It is a place of considerable trade, and in 1850 had 1,266 inhabitants. Richmond is a flourishing town on the east fork of Whitewater River, and on the Indiana Central Railroad, which is here crossed by the Cincinnati and Chicago Railroad, 68 miles east Indianapolis. It has manufactures of cotton, wool, paper, iron, flour, agricultural implements, etc., and is the center of a large trade. The vicinity is populous and highly cultivated. Population (1850) 1,443. Rushville is situated on Flatrock Creek, and is the terminus of a railroad from Shelbyville, 40 miles southeast Indianapolis. The Indianapolis and Cincinnati Junction Railroad will also pass through this town. Population (1850) 742. Salem is a considerable town on the New Albany and Salem Railroad, 35 miles northwest New Albany. It is pleasantly situated on rolling ground near the source of Blue River, and in the midst of a rich farming district. It has manufactures of woolens and flour, and a flourishing trade. Population (1850) 1,223; Shelbyville is situated on the Blue River, 26 miles southeast Indianapolis. Six railroads meet at this place—from Cincinnati, Columbus, Edinburg, Knightstown, Indianapolis, and Rushville, and create considerable business. Population (1850) 995.

44. Terre Haute is an important commercial town on the Wabash River and Canal, 73 miles west Indianapolis, with which it connects by the Terre Haute and Richmond Railroad. The Evansville and Crawfordsville, and the Terre Haute, Alton and St. Louis railroads also come in here, the latter forming a link in the great east and west central chain. It is a remarkably beautiful town, and the center of a vast and increasing trade, both by canal and railroad. Population (1850) 4,051.

45. Union City is an important railroad center on the Ohio line, 84 miles east-by-north Indianapolis. Seven railroads unite here and form connections in every direction. Those complete and in progress are the Indianapolis, Pittsburg and Cleveland; the Bellefontaine and Indiana; the Columbus, Piqua and Indiana; the Greenville and Miami; the Cincinnati, Union and Fort Wayne; the Marion and Mississinewa Valley, and the Fremont and Indiana.

46. Vincennes is a flourishing town on the Wabash River, and on the line of the Evansville and Crawfordsville Railroad, nearly equi-distant between Evansville and Terre Haute. East and west it is crossed by the Ohio and Mississippi Railroad, 192 miles west Cincinnati and 147 miles east St. Louis. The Wabash is also navigable to this point for steamboats. The facilities of movement have created a commercial center of vast importance, and converted a town, until lately known only as the most ancient in the State, into one of the most important entrepôts in the Valley States. Vincennes was settled in 1735 by the French from Canada. For several generations the colonists lived isolated from the world and in communion only with the savages that surrounded them. When the territorial government was organized it became the capital, and so continued until 1813. Many of the present inhabitants are of French descent. Population (1850) 2,070.

47. Among the other important towns may be mentioned—Dublin, 713; Knightstown, about 1,000; Liberty, 842; Newcastle, 666; Noblesville, 654; Newburg, 526; Princeton, 806; Paoli, 461; Pendleton, 389; Vernon, 690; Valparaiso, 522; Versailles, 412; Wabash, 1,300; Williamsport, about 500; Winchester, 532, etc. The population ascribed to these towns is referable to the census of 1850. Since that year many of them have added materially to their population, and partaken largely of the progressive movements of the State generally.

48. Indiana originally constituted a part of New France, and from 1683 to 1763, when the country was ceded to England, various trading posts had been established. Vincennes had become a flourishing town. On the 7th of May, 1800, Ohio having been erected into a separate territory, the remainder of the territory northwest of the Ohio River was named Indiana Territory, with a distinct organization. From this territory were subsequently formed, in 1805, the Michigan, and in 1809 the Illinois Territory. From 1788 to 1814 the settlements were much engaged in hostilities with the Indians. In 1815 the territorial legislature petitioned Congress for admission into the Union; and on the 19th of April, 1816, a bill passed Congress enabling the people to form a constitution and State government. A convention for this purpose was held in June, and Indiana was admitted into the Union by a resolution of Congress of the 11th December of the same year.

STATE OF MICHIGAN.



ARCH ROCKS, LAKE SUPERIOR.

1. MICHIGAN is situated between latitudes 41° 40′ and 47° 40′ north, and longitudes 82° 25′ and 90° 34′ west; and is bounded on the north by Lake Superior, on the east by St. Mary's River, Lake Huron, the St. Clair and Detroit straits and Lake Erie, on the south by the States of Ohio and Indiana, and on the west by Lake Michigan and the rivers Menomonee and Montreal.

2. This State consists of two peninsulas: the "southern," lying between lakes Michigan and Huron, is upward of 400 miles long, north and south, and from 100 to 300 miles wide; and the "northern," lying between lakes Superior and Michigan, is 316 miles long, east and west, and from 36 to 120 miles wide. The land surface of the whole State is 56,243 square miles, or 1.91 per cent of the total area of the United States.

3. The "northern peninsula" is much diversified by mountains, hills, valleys, and plains. The eastern portion, to the "pictured rocks," is undulating, rising gradually from the lakes to the interior, where it assumes the character of an elevated table-land. Westward the country becomes broken into hills, with intervening plains, until it is interrupted by the Porcupine Mountains, which form the dividing ridge separating the waters of Lake Superior from those of Lake Michigan. The highest peaks toward the western boundary are from 1,800 to 2,000 feet high. The ridge is often broken through by the larger streams, bordered by extensive valleys. The spurs of these mountains project in different directions, often exhibiting their denuded cliffs upon the northern shores. The greater portion of the peninsula, the sand plains excepted, is covered with immense forests, principally of white and yellow pine. Of the pine lands, there are millions of acres stretching between the Sault de Ste Marie and the Ontonagon and Montreal rivers. The country is abundantly supplied with water, and though none of the streams are large, yet they furnish immense power, and the means of internal navigation. The head branches of those flowing in different directions frequently interlock. The lake coast of this section of the State is estimated at between 700 and 800 miles in length, and that five sevenths of the entire peninsula may be reached by the common lake vessels. Thus the great mineral region of this important country is easily accessible to commerce.

4. The "southern peninsula" has generally a level or rolling surface, and in some parts is broken and hilly. The eastern portion, for a distance varying from 5 to 25 miles from the shore, is almost a dead level, but westward the land rises into an irregular ridge, in some parts attaining the height of 600 or 700 feet above the level. This ridge has much greater proximity to the eastern than to the western shore, and serves to separate the waters flowing into lakes on each side. The portion of the southern part of the State denominated hilly, branches off from the principal ridge in different directions through the adjoining country. The hills consist of an irregular assemblage of somewhat conical elevations, occasionally attaining the height of 150 to 200 feet, but ordinarily of not more than from 30 to 40 feet. The main portion of the table-land passing westward to Lake Michigan, with the exceptions noted, assumes a very gradual descent, exhibiting a gently undulating and very rarely broken surface. The ridge of land before spoken of again takes a rise near Au Sable River, and is seen from the lake to stretch on for many miles along and beyond the coast. It has been considered as the highest land of the State, and forms perhaps the most rugged part of the lower peninsula. Taking the great extent of this peninsula into consideration, however, it may, in a comparative point of view, be said to possess a great evenness of surface, with a sufficient declivity, nevertheless, to allow the waters to drain off in lively and healthy streams. The coasts, both toward lakes Michigan and Huron, are sometimes exhibited in high, steep, and rugged banks, and those of the former are frequently seen in bluffs and sand-hills, varying from 100 to 300 feet in height.

5. The rivers of Michigan are in general comparatively smaller, but more numerous, than is commonly observed in most other sections of the Union; a fact attributed not only to the uniformity of descent, but also to the more favorable structure of the interior to furnish them constant supplies. The Detroit, St. Clair, and St. Mary's are more properly called straits; they are tranquil, deep, copious, and expansive streams, uniting the great lakes, the waters of which they conduct toward the ocean.

6. The largest rivers of the southern peninsula are the Grand, the Maskegon, St. Joseph, and Kalamazoo, which flow into Lake Michigan; the Sheboygan and Thunder Bay rivers, that discharge into Lake Huron, and the Saginaw, which empties into the bay so called. The streams flowing eastward are small, owing to the position of the dividing ridge, which is considerably east of the middle of the peninsula. The largest are the Raisin, the Huron, the Clinton, and the Rouge.

7. The largest rivers of the northern peninsula are the Montreal, the Great Iron, the Ontonagon, the Huron, the St. John's, and the Chocolate, which put into Lake Superior, and the Menomonee and Manistee, which flow, the former into Green Bay, and the latter into Lake Michigan. There are several other considerable streams, though of a smaller grade, and these, with few exceptions, are lively, pure, and healthy, supplying mill power, and draining the fine agricultural lands through which they course. Many of these streams are well stocked with trout and other fish, and afford excellent sport to the angler.

8. Michigan is encompassed by five great lakes, four of which are the largest collections of fresh water on the globe. Of these immense mediterranean waters, Lake Superior is by

far the largest. It lies directly north of the upper peninsula. Lake Michigan is the second in size. It is a long, narrow lake, stretching between the lower peninsula and the States of Illinois and Wisconsin. Lake Huron is next in dimensions. The shape of this lake is very irregular; its principal indentations are Saginaw Bay, which extends down into the interior, and two others, one immediately north of the Manito Islands, and the other southeast of them. The latter, sometimes called Manito Bay, or Georgian Lake, is very large, estimated at one fourth the extent of Lake Huron. It empties through St. Clair Strait into Lake St. Clair, the smallest of the five lakes bordering on Michigan, and this again discharges itself through the Detroit into Lake Erie. More than 30 miles of this latter borders Michigan, and opens to the State a free navigation to the principal ports along its coasts.



SAULT STE MARIE AND CANAL.

9. Nor is this State merely surrounded by lakes, but the interior is interspersed with them from one border to the other. The country, indeed, is literally maculated with these collections of water, from an area of 1 to 1,000 acres, though as a general rule they do not perhaps average 500 acres in extent. They are usually very deep, with gravelly bottoms, waters transparent, and cool at all seasons. This latter fact is attributed to springs, which furnish them constant supplies. Water-fowl of various sorts inhabit their shores, and their depths are the domain of abundance of fish, which grow to an enormous size. It is usual to find some creek or rivulet originating in these, but many have no perceptible outlet, and yet are stored with fish.

10. With all its length of lake coast, Michigan can boast of but few good harbors, yet there are several that afford excellent shelter from the storms that frequently sweep over these great inland seas, and lash them into overwhelming billows.

11. The geological structure of Michigan is extremely various; the southern peninsula is exclusively secondary in its formation; while the northern peninsula, bordering on Lake Superior, is primitive, but the portions bordering on Lake Michigan and Green Bay are secondary. Primitive boulders are discoverable in every part of the State, and there are many evidences of the land having once formed the bottom of the lakes, the waters of which have receded.

12. The southern peninsula is much similar in its geology to the formation of western New York, its rocks consisting of horizontal strata of limestones, sandstones, and shales; the limestones being generally found in the beds of the rivers near the lakes, and the sandstones mostly in the interior. The soil covering these strata is either alluvial or diluvial, and has a depth varying from 1 foot to 150 feet. The upper sandstone occupies the central and more elevated portions of the peninsula. The stratum underlying the sandstone is a gray-colored limestone. Associated with this rock is found calcareous spar, strontian, barytes, gypsum, etc. Below the gray lime-rock, the graywacke or lower sandstone is supposed to exist. In all those localities where the superior stratum or carboniferous limestone formation exists, there are indications of the formation of bituminous coal. Marl is abundant, and the sand beds bordering the lakes yield a good sand for the manufacture of glass.

13. In the northern peninsula the great copper and iron region is found in the primitive formation. Here are the most stupendous deposits of those valuable metals hitherto discovered. The great copper deposits are principally confined to the Kewenaw peninsula. The extreme length of the beds is about 135 miles, with a width varying from one to six miles. The mineral, however, does not exist in every portion of this extent, for miles may intervene, and no trace be ascertained. In some of the river beds immense boulders of native copper are met with.

14. Salt springs are known to exist in different parts of the State. The saline district lies mostly north of a line drawn from Monroe to Grandville. Medicinal waters, chiefly chalybeate, and sulphur also occur in numerous localities, and are useful in cutaneons and chronic affections of the liver and spleen.

15. In 1850 Michigan contained 397,654 inhabitants, forming 72,611 families and occupying 71,616 dwellings. This gives the State a population of 7.07 to the square mile, and equal to 1.71 per cent. of the whole population of the United States. The population of the counties was as follows:

Counties.	Population.	County Seats.	Counties.	Population.	County Seats.	Counties.	Population.	County Seats.
Allegan	5,125	Allegan.	Jackson	19,431	Jackson.	Oakland	31,270	Pontiac.
Barry	5,072	Hastings.	Kalamazoo	13,179	Kalamazoo.	Oceana	300	——
Berrien	11,417	BerrienSpring	Kent	12,616	Gr. Rapids.	Ontonagon	889	Ontonagon.
Branch	12,472	Cold Water.	Lapeer	7,029	Lapeer.	Ottawa	5,587	Grand Haven.
Calhoun	19,162	Marshall.	Lenawee	26,372	Adrian.	Saginaw	2,609	Saginaw City.
Cass	10,907	Cassopolis.	Livingston	13,485	Howell.	St. Clair	10,420	St. Clair.
Chippewa	898	Ste Marie.	Macomb	15,530	Mt. Clemens	St. Joseph's	12,725	Centreville.
Clinton	5,102	De Witt.	Marquette	136	Marquette.	Sanilac	2,112	Lexington.
Eaton	7,058	Charlotte.	Mason	93	——	Schoolcraft	16	——
Genesee	12,031	Flint.	Michilimackinac and 21 others	3,598	Mackinaw.	Shiwassee	5,230	Corunna.
Hillsdale	16,159	Hillsdale.	Midland	65	——	Tuscola	291	Vassar.
Houghton	708	Eagle River.	Monroe	14,698	Monroe.	Van Buren	5,800	Paw-Paw.
Huron	210	——	Montcalm	891	Greenville.	Washtenaw and Wayne	28,567	Ann Arbor.
Ingham	8,631	Mason.	Newago	510	Newago.		42,756	Detroit.
Ionia	7,597	Ionia.						

—of the total, 395,071 (99.36 per cent.) were whites—208,465 males and 186,606 females, and 2,583 (0.64 per cent.) colored persons—1,431 males and 1,152 females; and 341,501 (85.9 per cent.) were Americans, of whom 140,648 were born in this State, 54,852 (13.79 per cent.) were foreigners, and 1,211 of unascertained origin. There were 12,409 natives of Michigan resident in other States.

16. The population in 1810 amounted to 4,762, in 1820 to 8,896, in 1830 to 31,639, in 1840 to 212,267, and in 1850 (as above) to 397,654. In 1855 there were in the State 509,374 inhabitants.

17. In 1850 there were 108,978 males over 15 years of age engaged in industrial pursuits. Of these 22,375 were engaged in commerce, trade, manufactures, the mechanic arts, and mining; 65,815 in agriculture; 15,662 in labor not agricultural; 143 in the army; 1,220 in navigation; 2,007 in law, medicine, and divinity; 1,092 in other pursuits requiring education; 337 in government civil service; 220 in domestic service, and 167 in occupations the nature of which is not specified.

18. The great interests of southern Michigan are agriculture and commerce. In northern Michigan copper and iron mining are the chief occupations. Manufactures have also attained a respectable footing, and the fisheries of the lakes attract considerable attention. The position of this State in regard to water communication and also in relation to its internal improvements afford it eminent advantages for a rapid development of its resources, which are not surpassed in richness and value by any other State of the Union.

19. The copper and iron mines of the north are extensively worked, chiefly by incorporated companies. Since the opening of the Sault Ste Marie Canal, this interest has flourished



COPPER HARBOR, LAKE SUPERIOR.

beyond all anticipation and is yearly increasing in productiveness. The statistics of copper mining in these regions in 1856 afford the following figures:

	Ontonagon Region.	Keweenaw Region.	Portage Lake Region.	Total
Companies operating	20	8	5	33
Engines worked	16	26	6	48
Horse-power of engines	501	651	52	1,204
Heads of stamps	140	162	139	441
Value of engines	—	—	—	$308,760
Copper—mass	1,668 tons	— tons	— tons	— tons.
" —barrel and stamp	1,099 "	— "	— "	— "
" —total	2,767 "	2,128 "	462 "	5,357 "
" —total = to ingots copper				3,600 "
" —total value at 25 cents per pound				$1,800,000

—and these results can only be considered as the first returns of this branch of industry, and a promise of the rich production of future years. The iron ore of this region is also attracting attention, and considerable quantities have already been exported.

20. The number of farms in Michigan in 1850 was 34,089, covering 4,383,890 (improved 1,929,110) acres of land or about one eighth of the whole surface. The value of these farms was $51,872,446, and the value of implements and machinery thereon was $2,891,371. Thus the average number of acres in each farm was 129, valued at $1,521, or with the implements, etc., $1,606.

21. The amount of livestock owned in the State in 1840 and 1850 is stated to have been as follows:

1840	horses, mules, etc.,	30,144	neat cattle,	187,190	sheep,	99,618	swine,	295,890
1850	" "	58,576	"	274,497	"	746,435	"	205,847

—and the stock of 1850 was valued at $8,008,734, and the value of animals slaughtered in the year preceding had been $1,328,327. Of the animals in 1850, 701 were mules and asses, 99,676 milch cows, and 55,350 working oxen. The products of animals in 1849–50 consisted of—butter 7,065,878, cheese 1,011,492, and wool 2,043,283 (in 1839–40, 153,375) pounds.

22. The grain crops (bushels) reported in the returns of 1840 and 1850 were as follows:

1840	wheat,	2,157,108	rye,	34,236	oats,	2,114,051	Indian corn,	2,277,089	barley,	127,802	buckwheat,	113,592
1850	"	4,925,889	"	105,871	"	2,866,056	"	5,641,420	"	75,249	"	472,917

—making a total in 1840 of 6,823,822, and in 1850 of 14,087,402 bushels. The potato crop

in 1840 was 2,109,205 and in 1850 (including sweet 1,177) 2,361,074, and the crop of peas and beans in 1850 amounted to 74,254 bushels.

23. The other agricultural products in 1849–50 consisted of—hay 404,934 tons, hops 10,663 pounds, clover seed 16,989, and other grass seed 9,285 bushels, beeswax and honey 359,232 pounds, flax seed 519 bushels, flax 7,152 pounds, maple sugar 2,439,794 pounds, molasses 19,823 gallons, tobacco 1,245 pounds, silk cocoons 108 pounds, and wine 1,654 gallons. The value of market-garden products was $14,738, and of orchard products $132,650.

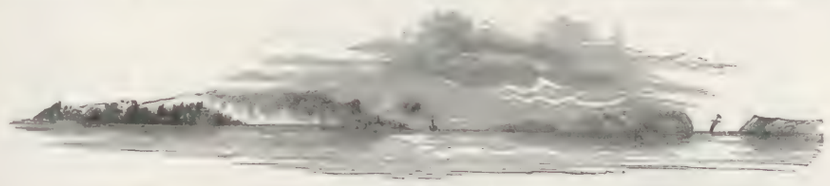
24. The aggregate value of the agricultural products of the State was in 1840 $3,207,048, and in 1850 $17,329,385.

25. In 1850 there were in this State 1,963 establishments engaged in manufactures, mining, and the mechanic arts. In the prosecution of these branches of industry, a money capital of $6,534,250 was invested, and in the year ending 1st June, the raw material consumed was valued at $6,105,561; the average number of hands employed was 9,290, at a cost of $2,387,928; and the value of the year's production was $10,976,894. These establishments embraced 15 woolen manufactories, with capital amounting to $94,000; 64 iron works with $210,450; 29 distilleries and breweries with $126,625; 61 tanneries with $236,000, etc. Otherwise Michigan has about 260 flouring and 650 saw mills, with numerous asheries, potteries, machine-shops, etc. The value of home-made goods amounted to $340,947. The returns (including home-made goods) for 1810, valued the products of manufactures, etc., at $52,518; in 1820, at $100,460; in 1830 (no returns); in 1840, at $3,898,676, and in 1850, at $11,317,841.

26. The foreign commerce of Michigan is that carried on with Canada. For the year ending 30th June, 1850, the value of exports was $132,045, and 1855, $568,091; and the value of imports respectively, $144,102 and $281,379. The amount of shipping for the two years was—cleared 54,701 and 62,611 tons, and entered 56,963 and 70,491 tons. The shipping owned in the State in 1850 amounted to 38,144 (steam 18,015) tons, and in 1855 to 69,490 (steam 34,578) tons; and the shipping built amounted to 2,061 and 7,844 tons. The principal ports engaged in this trade are Mackinaw and Detroit. In the spring of 1858 a vessel sailed from the latter port direct for Liverpool *via* the Lakes, Welland Canal, and St. Lawrence.

27. The domestic and transit trade of the State is very extensive. A large share of the trade between the Upper Mississippi country and the sea-board passes over the railroads of the southern peninsula; and already most of the great centers of population communicate by railroad, and have easy access to the lake shores. The coasting trade is also large, and is carried on with great activity chiefly by steamers, which connect the ports of this State with the principal lake ports of the adjoining States. Steam navigation has even been extended to the Michigan ports of Lake Superior for the accommodation of the miners.

28. Three great lines of railroad cross the State east and west, viz., the Southern, the Central, and the Detroit and Milwaukee lines. The first two accommodate the Chicago trade, and the latter that of Milwaukee, with which it is connected by a steam ferry across the lake. A line is also being built from the western terminus of the Sarnia Branch of the Canada railroads to connect with the Milwaukee line. Otherwise there are several transverse roads, and others are projected which will extend from Ohio and Indiana north through Michigan to the new city of Mackinaw on the strait so called. In the northern peninsula there is a



STRAITS OF MACKINAW

railroad from Marquette to the iron mines 20 miles west, and this will be continued to a junction with the Ontonagon line projected from Ontonagon southward to Milwaukee and Chicago *via* Fond du Lac. There are now (1857) within the State between 600 and 700 miles of completed railroad, and twice that mileage is either under construction or projected. With the whole system completed, few other States will rival Michigan in its facilities for commerce.

29. At the close of the year 1850, Michigan had six banks with capital amounting to $764,022, and at the close of 1855 four banks with $730,438. The liabilities of these institutions at the two periods were as follows—circulation $897,364 and $573,840, deposits $416,147 and $1,366,958, due to other banks $42,589 and $53,425, and miscellaneous $138,930 and $128,216; and the assets consisted of—loans and discounts $1,319,305 and $1,988,087, stocks $420,521 and $517,945, real estate $221,626 and $124,486, other investments $65,083 and $21,347, due by other banks $404,691 and $402,520, notes of other banks $109,096 and $97,265, specie funds $195 and $6,433, and specie $125,722 and $152,080.

30. The constitution of Michigan was adopted in convention at Lansing on the 5th August, 1850. It grants the right to vote to every white male citizen, and to every civilized male Indian not a member of any tribe, but every elector must be 21 years of age and have resided in the State three months and in the district 10 days next preceding an election. The day of general election is the Tuesday after the first Monday in November.

31. The legislature consists of a senate of 32 members and a house of representatives of 66 members, all elected from districts for two years. Members of both houses must be citizens of the United States and qualified electors. The sessions commence on the first Wednesday in January and biennially.

32. The governor is elected for two years by the people at large. He must be 30 years of age, and must have been a citizen of the United States for five years and of the State for two years. The lieutenant-governor is elected for the same term, and must have the same qualifications. The administrative officers of the government are also elected for two years.

33. The judiciary consists of a supreme court, eight circuit courts, county probate courts, and justices' courts. Municipal courts of civil and criminal jurisdiction may also be established. All judges and justices are elected by the people.

34. The public revenue is derived chiefly from taxes on incorporated companies, sales of lands, the U. S. 5 per cent. on land sales, etc. For the years ending 30th November, 1850 and 1855, the receipts into the treasury amounted to $429,268 and $588,397, and the total resources (including remainders from former years) to $484,716 and $1,141,253. The expenditures for the years respectively amounted to $449,355 and $624,777. Nearly one half of the receipts and expenditures are on account of special funds administered by the State. In 1855 the receipts on these accounts were $246,470, and the expenditures $269,978. The balance left over belongs chiefly to the educational fund.

35. The State debt on the 30th November, 1855, amounted to $2,389,958, upon which the annual interest (6 per cent.) was $143,397. To meet this the State has ample resources in its swamp lands and other property. In 1850 the taxable property in the State was valued at $30,877,223, and in 1855 at $120,362,474.

36. The principal institutions supported wholly or in part by the State are the Asylum for the Insane at Flint, the Asylum for the Deaf and Dumb and the Blind at Kalamazoo, the State Prison at Jackson, and the House of Correction for Juvenile Offenders at Lansing. Annual appropriations are also made for the State Agricultural School, etc.

37. The census of 1850 returned 105,961 children as having attended school in the year preceding. This number is equivalent to one in every 3.75 of the total population. On the 1st June, 1850, the returns were as follows:

Classification.	Number.	Teachers.	Scholars.	Income.
Primary and public schools	2,714	3,231	100,455	$167,806
Academies and private schools	37	71	1,619	24,947
Universities and colleges	3	22	808	14,000

—making a total of 2,754 schools, 3,324 teachers, and 102,382 scholars, and an annual income of $206,753. The number of persons over 20 years of age who could not read and write was 8,281, of which 5,272 were natives and 3,009 foreigners, and 7,912 were whites and 369 free colored persons.

38. In 1855 the number of children of school-age in the State was 173,117, of which 129,517 were attending school. The amount paid for teachers' wages was $237,827. The school fund amounted to $1,384,288, and the university fund to $452,423. There is a State Normal School at Ypsilanti, which went into operation in April, 1853.

39. The principal collegiate and professional schools in the State in 1855 were the following:

Institutions.	Location.	Founded.	Professors.	Students.	Libraries.
University of Michigan	Ann Arbor	1837	13	285	8,400
St. Philip's College	Detroit	1839	4	30	3,200
Med. Depart. Univ. of Michigan	Ann Arbor	1850	7	167	Univ. Lib.

40. The most numerous of the religious denominations in Michigan in 1850 were the Methodist, Presbyterian, Baptist, and Roman Catholic, which in relation to the whole population included a fourth, a sixth, an eighth, and an eighth. Next in point of numbers were the Congregational (a twelfth) and the Episcopal (a sixteenth); and next, and in decreasing numbers, the Lutheran, Dutch Reformed, Friends, Universalist, Union, Christian, Free, Moravian, etc. The whole number of churches in the State in the year named was 399, with accommodations for 120,117 persons; and the value of church property was estimated at $723,600.

41. Lansing, the seat of government, is situated on Grand River, 150 miles from its mouth in Lake Michigan, and 112 miles west Detroit. Latitude 43° 43′, and longitude 84° 29′. Lansing was selected as the capital in 1847, at which period the site was a wilderness; it has since became an important center of trade and of a profitable industry facilitated by the abundant water-power in the vicinity. Plank roads have been built to Jackson, Marshall, and other towns, and a railroad is projected to Jackson, on the Michigan Central Railroad. The State House is a large and substantial edifice, built on an eminence 50 feet above the river. The other public buildings are a house of correction for juvenile offenders, opened in 1856, six or seven churches, several large hotels, etc. Population (1850) 1,229, and (1855) about 4,000. The neighborhood is also rapidly filling up with an industrious population.

42. Detroit, the commercial metropolis of Michigan, is situated on Detroit River, 20 miles above Lake Erie, and opposite Windsor, the western terminus of the Great Western Railroad of Canada. Latitude 42° 19′ 45″, and longitude 83° 2′ 30″. The river, here half a mile wide, forms an excellent harbor, and, by its position in regard to lake navigation, it has communication by water in every direction. Its commerce is large and ever increasing. In 1855 it exported domestic produce, coastwise and to Canada, valued at upward of $8,000,000. The railroads diverging from and connecting at this point also greatly facilitate its business, and, being links in the great chain through and from Canada westward, make it one of the first transit stations in the Union. These are the Michigan Central, connecting it directly with Chicago, and the Detroit and Milwaukee, connecting it with Milwaukee. Another railroad, the Detroit and Toledo, lately completed, gives it access to Toledo, and at Monroe, by a connection with the Michigan Southern Railroad, forms a second route to Chicago. The harbor is frozen over in winter, but during the season of navigation is alive with steamers and sail craft, which, either in connection with the railroads or independently, ply to and from all the lake ports.

43. The manufactures of the city are large and important, embracing machinery of all kinds for steamboats, locomotives, mills, etc., hollow-ware, agricultural implements, cabinet-ware, etc., and both steam and sail vessels are built. Tanning and brewing are also considerable interests, and a large amount of lumber is manufactured for the markets.

44. Detroit is a well built and regularly planned town, rectangular near the river, but beyond divided into triangular sections, the avenues of which converge to an open area called the Grand Circus. The city is adorned with several squares, and its main thoroughfares are from 120 to 200 feet wide, well paved and lighted with gas. The water supply is raised by machinery from the river to a reservoir 50 feet above the town, and is thence distributed. Among the public buildings of the city the principal are the old State House, a large edifice 90 by 60 feet, with a dome and steeple 140 feet high; the City Hall, a brick building 100 by 50 feet, and the building of the Michigan Bank. The railroad stations are also massive and very extensive buildings, and with their freight-houses cover large space. Detroit has about 30 churches, a museum, a theater, two orphan asylums, four banks, and numerous public schools. In the near vicinity is St. Philip's College, founded by the Catholics in 1839.

45. The site of Detroit appears to have been visited by the French as early as 1610: in

1670 a fort was built, and in 1701 the town founded. In 1759 the country fell into the hands of the English, and in 1783 it was transferred to the United States. In 1802 Detroit was incorporated; in 1805 it was destroyed by fire; in 1810 the act of incorporation was repealed; in 1812 the fort and town surrendered to the British, but in 1813 were returned to the United States, and in 1815 the city was re-incorporated. The population in 1810 was only 770; in 1820 it had increased to 1,442, and in 1830 to 2,222. From this its progress became more rapid, and in 1840 it contained 9,192 inhabitants, and in 1850, 21,019. In 1853 it had risen to 34,436, and in 1855 to 50,448.



OBSERVATORY OF UNIVERSITY OF MICHIGAN.

46. Michigan has also a large number of other important towns, which for convenience are arranged for description (as follows) in alphabetical order. Ann Arbor, on Huron River and the Michigan Central Railroad, 37 miles west Detroit, is one of the most important business towns in the State. It has also extensive manufactures and large flouring mills. The State University is located here. Population 4,868. Flint, on the river of the same name, is a thriving village, 60 miles northwest Detroit. It is the seat of the State Asylum for the Blind, and Deaf and Dumb. Population 3,304.

47. Grand Haven is situated on the south bank of Grand River, at its entrance into Lake Michigan. The river, which is here 350 yards wide, forms a spacious and eligible harbor, with a depth varying from 12 to 30 feet. It has a large shipping business, and is the western terminus of the railroads from Detroit and Huron, connecting at those places respectively with the railroads of Canada. Steam ferry-boats cross the lake to Milwaukee, Chicago, Racine, etc., and continue the great route west to and beyond the Mississippi. Population about 2,000; Grand Rapids is situated at the rapids of Grand River, 40 miles from its mouth, and on the Detroit and Milwaukee Railroad. It occupies a handsome site on the left bank of the river, and is one of the most flourishing cities of the States. Steamboats ply regularly between this place and Grand Haven, and carry on an active trade. A vast water-power is created by the rapids, and extensive manufactures are in operation. In the vicinity salt and gypsum are found, also limestone, and pine and other timber are abundant. Population 5,833.

48. Jackson, on Grand River, near its source, and on the Central Railroad, 75 miles west Detroit, is a considerable town of 6,510 inhabitants. It is the seat of the State Prison. The river here affords a great power, which is used in a varied manufacturing business. Jackson is also a place of considerable trade. A railroad has been constructed from Adrian to this town, and is in progress to Lansing, the capital, to which there is already a plank-road; Kalamazoo is the seat of the State Lunatic Asylum. It is built on the river of the same name, and on the Central Railroad, 143 miles west Detroit. Manufactures of various kinds have been commenced here, and its trade is extensive. The vicinity is well-timbered and highly productive. Population 5,791.

49. Mackinaw is a flourishing town on the island so called, in Lake Huron. Latitude 45° 54′, and longitude 84° 30′. It is pleasantly situated on a small bay on the east side, and has a deep and safe harbor. Fort Mackinaw stands on a rocky elevation, 150 feet above the lake, and commands the town. The trade of this place is large and increasing, and it has valuable fisheries. The Collingwood and Chicago steamers stop here, and it is also a stopping-place for other steamers between the ports of the lower and upper lakes. Population about 1,500.

50. Monroe is built on Raisin River, two miles from Lake Erie, with which it is connected by a ship canal. The Central Railroad also commences at the lake and runs west to the city, where it is intersected by the Detroit and Toledo Railroad, 40 miles south Detroit. Monroe is the principal market for the valley of the Raisin, and is the shipping port for the towns on the Central Road. Its exports are valued at more than $10,000,000 a year. A French settlement formerly occupied the site of this town, but the present town dates back scarcely 20 years. In 1850 it contained 3,650 inhabitants.

51. Pontiac is situated on Clinton River and on the Detroit and Milwaukee Railroad, 25 miles northwest Detroit. It is a place of active business and a principal wool market. It has also flourishing manufactures. Population 4,501.

52. Port Huron is eligibly situated on the St. Clair, at the mouth of Black River, and but two miles south from Lake Huron. On the opposite side of the river is the Canadian port Sarnia, the western terminus of the Grand Trunk and the Great Western railroads, which will connect with the Huron and Michigan Railroad from Port Huron to Grand Haven. The town has already an active trade, flourishing manufactures, and 3,886 inhabitants; Saginaw City, on the Saginaw, 25 miles from its mouth, is built on a commanding site on the left bank of the river, which is here navigable for vessels drawing 10 feet water. Population about 2,000. A railroad is about to be constructed between Lansing and Saginaw.

53. Ste Marie or Sault Ste Marie is situated at the rapids or sault of the St. Mary's River, 15 miles from the outlet of Lake Superior. The sault at this place has a descent of 22 feet, and is the natural bar between the upper and lower lakes. This has recently been overcome by a ship canal, and loaded vessels pass from one to the other lake without difficulty. The town is very pleasantly situated, and in summer is frequently visited by the northern tourist. Many of its inhabitants are engaged in the fisheries and the fur trade; but since the completion of the canal a large trade has sprung up with the Superior mining region.

54. Tecumseh is a beautiful town on the Raisin, 10 miles north of Adrian. The Jackson Branch of the Southern Railroad passes through it. Population 2,679; Ypsilanti is a flourishing town on the Huron River and Central Railroad, 30 miles west Detroit. It has considerable manufactures, and is the market for a fertile agricultural region. The State Normal School is located here. Population 3,051.

55. The principal places on Lake Superior are Marquette, Copper Harbor, Eagle Harbor, and Ontonagon. Marquette is a thriving settlement about 160 miles west of Ste Marie, and is the depôt of an extensive and rich iron region, to which a railroad 20 miles long has been opened. Copper Harbor is, as its name imports, the depôt for a copper region. It is situated on the northwest of Keweenaw peninsula. The mines in the vicinity are very productive and are largely worked. A few miles farther west and on the same peninsula is Eagle Harbor, also the outlet of rich mines and a place of considerable trade. About 80 miles farther west and at the mouth of Ontonagon River is the new town of the same name, to which a railroad is in progress from Fond du Lac in Wisconsin. Steamers from the lower lake ports call regularly at all these ports on their way to Superior City, and returning, carry back the produce of the mines. This trade is already very valuable, and yearly increasing.



EAGLE HARBOR.

56. The first settlements in Michigan were made by the French engaged in the fur trade, and Catholic missionaries were settled among the Indians at an early period. Detroit was first visited about 1610, but its foundation dates only from 1701. As early as 1632 Father Sægard had reached Lake Huron. About the middle of the seventeenth century trading ports were established at Sault de Ste Marie, Michilimackinac, and Green Bay. Michigan, in common with the whole Northwest Territory, was held by France until 1763, and then by England until the close of the Revolutionary War. The government of the United States did not take possession of the country until 1796. In 1805 Michigan was constituted a Territory, and on the 1st July of that year the government was organized at Detroit by Gen. William Hull, its first governor. In 1812 Detroit was taken by the British under Gen. Brock, but was recovered in 1813 by the Americans under Gen. Harrison. Michigan was admitted into the Union by an act of Congress, approved 26th January, 1837.

57. A proposition has long been entertained, both in this State and in Wisconsin, to have their northern sections divided off and erected into a separate State under the name of "Superior." Such a State would include the whole of the great mineral regions of the middle north, and as these constitute a separate geographical region, the interests of which are peculiar, the consummation of the project would be advantageous.

STATE OF ILLINOIS.



1. Illinois is situated between latitudes 37° and 42° 30′ north, and longitudes 87° 47′ and 91° 28′ west; and is bounded on the north by Wisconsin, on the northeast by Lake Michigan, on the east by Indiana and the Wabash River, on the south by the Ohio River and Kentucky, and on the west by the Mississippi which flows between this State and the States of Iowa and Missouri.

2. The extreme length of Illinois on the meridian of Cairo is 378 miles, and the greatest breadth which occurs on the parallel of Danville is about 212 miles. The outline of the State measures about 1,160 miles, the whole of which except 305 miles is formed by navigable waters; and its superficial extent is estimated at 54,405 square miles, or 1.89 per cent. of the whole area of the Union.

3. As a physical section, Illinois occupies the lower part of that inclined plane of which Lake Michigan and both its shores are the higher sections, and which is extended into and embraces the much greater part of Indiana. Down this plane, in a very nearly southwestern direction, flow the Wabash, the Kaskaskia, the Illinois, the Rock, and the Wisconsin rivers. The lowest section of the plane is also the extreme southern angle of Illinois, about 340 feet above tide-water in the Gulf of Mexico. The extreme elevation of the country may be stated at 800 feet above tide-water, and the mean height at 550 feet. Next to Louisiana and Delaware, it is the most level State in the Union. A small tract in the south is hilly, and the northern portion also is somewhat broken. There are likewise considerable elevations along the Illinois River, and the bluffs of the Mississippi in some places might pass almost for mountains. But by far the greater portion of the surface is distributed in vast prairies or in barrens, which are gently rolling, like the waves of the sea after a storm.

4. Illinois possesses immense advantages for internal navigation. Its northeastern corner for fifty miles is washed by the waters of Lake Michigan, which open a communication with the whole lake country of the north. The Mississippi River forms its western border, and

ILLINOIS, IOWA AND MISSOURI.

EXPLANATION.
State Capitals ✲ SPRINGFIELD
County Towns ○ Petersburg
Rail Roads
Canals
Battle Fields

SCALE OF STATUTE MILES.
0 10 20 40 60 80
50 Geographical or 57.63 Statute Miles to one inch.

VICINITY OF St. LOUIS.

VICINITY OF CHICAGO

Entered according to Act of Congress in the Year 1858 by J.H. Colton & Co. in the Clerks Office of the District Court of the United States for the Southern District of New York

the Ohio and Wabash rivers demark its southern and eastern limits, together furnishing a natural water highway of unexampled extent.

5. The rivers which have their courses within the limits of the State are Rock, Illinois, Kaskaskia, and Big Muddy, affluents of the Mississippi; the Embarras and Little Wabash, tributaries of the Wabash; and the Saline and Cash rivers, which empty into the Ohio. The Illinois is much the largest of these: it is formed by the union of the Kankakee and Des Plaines, and in its course of 500 miles toward the Mississippi receives Fox and Spoon rivers, Crooked Creek, and several other streams from the north, and the Vermillion, Mackinaw, Sangamon, and others from the south. The current of the Illinois is in general gentle, with a wide, deep bed, in some places opening into broad and lake-like expanses. Rock River rises in Winconsin, and has a course of 300 miles; it is navigable for some distance, but in its upper course is impeded by several rapids. The Kaskaskia rises in the eastern part of the State, and pursues a direction nearly parallel to that of the Illinois and Rock rivers, and after a course of 300 miles reaches the Mississippi in latitude 38° north. The Big Muddy is also a considerable stream. The rivers flowing to the Ohio and Wabash are generally of less volume than the smaller class of rivers flowing toward the Mississippi; but several are navigable, and all contribute much to the wealth of the country by the abundance of water-power they supply for mechanical purposes.

6. The northern portion of Illinois is inexhaustibly rich in minerals, while coal, secondary limestone, and sandstone are found in almost every part. Iron ore is also widely distributed, The minerals most common to the northwestern section are lead and copper. The lead diggings extend over a vast tract, and into the adjoining States, and are doubtlessly the most productive of any hitherto known. Silver is frequently found in combination with the lead ores. The coal of Illinois is bituminous, and is spread over a large extent of country; it is found in the ravines and bluffs of the Mississippi, and large veins were struck in excavating the canal below Ottawa. Building stones of almost every description are quarried. Sulphur



FARMING SCENE IN ILLINOIS.

and chalybeate springs exist in several parts of the State, and there are salt springs in Gallatin, Jackson, Vermillion, and other counties. Immense boulders of granite are strewn upon the surface in many parts of the State.

7. The soils of Illinois, though of such various character, are mostly fertile and productive. In the bottoms, or alluvial borders of the rivers, the soil is chiefly formed from the deposits of the waters during floods. In some cases the mold so formed is twenty-five feet and upward in depth, and of inexhaustible fertility. One sixth of the alluvial land, however, is unfit for present cultivation, although it is productive in timber. A tract called the "American Bottom," extending along the Mississippi for ninety miles and about five miles in average width, is of this formation. About the French towns it has been cultivated, and produced Indian corn every year, without manuring, for a century and a half. The prairie lands, although not so productive, are yet not inferior for many agricultural purposes, and are preferred, where wood is to be had, on account of their superior salubrity. The barrens or oak-openings have frequently a thin soil. In the north there are tracts somewhat stony, yet in every other part the plow may pass over millions of acres without meeting so much as a pebble to impede its course.

8. Illinois possesses great variety in its climate, and the level surface that characterizes it exposes it alike to sun and storm. The winters are everywhere severe, and the summers hot and prolonged. The climate is also subject to sudden changes, especially from November to May, and below the parallel of 40° the summer heat is extremely enervating. The prevailing winds are the southwest, which blow for three fourths of the year; the north and northwesterly prevail in the winter months. On the whole, however, the climate is favorable to out-door occupations, the proportion of clear and cloudy days being as 245 of the former to 120 of the latter. Vegetation commences with April, and the first killing frost occurs from the 1st to the 15th September. The general salubrity of Illinois is well attested, and few suffer from endemic diseases, except those who are imprudent, or who settle near swamps or other sources of miasms.

9. In general Illinois is well supplied with timber, and were it equally distributed through the State there would be no part wanting. The kinds of timber most abundant are oaks of various species, black and white walnut, ash of several kinds, elm, sugar-maple, honey-locust, hackberry, linden, hickory, cotton-wood, pecan, mulberry, buckeye, sycamore, wild cherry, box-elder, sassafras, and persimmon. In the southern and eastern parts of the State yellow poplar and beech are the peculiar growths, and near the Ohio are clumps of yellow pine and cedar. The undergrowths are red-bud, pawpaw, sumac, plum, crab-apple, grape-vines, dogwood, spice-bush, green-brier, hazel, etc. The alluvial soil of the rivers produces cotton-wood and sycamore timber of amazing size. Many valuable medicinal plants are found in every part of the State.

10. In 1850 Illinois contained 851,470 inhabitants, comprised in 149,153 families, and occupying 146,544 dwellings. This population is equivalent to a density of 15.37 to the square mile, and 3.07 per cent. of the total of the Union. Its distribution into the counties was as follows:

Counties.	Population.	County Seats.
Adams	26,508	Quincy.
Alexander	2,484	Thebes.
Bond	6,144	Greenville.
Boone	7,624	Belvidere.
Brown	7,198	Mount Sterling.
Bureau	8,841	Princeton.
Calhoun	3,231	Hardin.
Carroll	4,586	Mount Carroll.
Cass	7,253	Beardstown.
Champaign	2,649	Urbana.
Christian	3,203	Taylorville.
Clark	9,532	Marshall.
Clay	4,289	Louisville.
Clinton	5,139	Carlyle.
Coles	9,335	Charleston.
Cook	43,385	Chicago.
Crawford	7,135	Robinson.
Cumberland	3,718	Greenup.
De Kalb	7,540	Sycamore.
De Witt	5,002	Clinton.
Du Page	9,290	Naperville.
Edgar	10,692	Paris.
Edwards	3,524	Albion.
Effingham	3,799	Ewington.
Fayette	8,075	Vandalia.
Franklin	5,681	Benton.
Fulton	22,508	Lewiston.
Gallatin	5,448	Shawneetown.
Greene	12,429	Carrollton.
Grundy	3,023	Morris.
Hamilton	6,362	M'Leansboro'.
Hancock	14,652	Carthage.
Hardin	2,887	Elizabethtown.
Henderson	4,612	Oquawka.
Henry	3,807	Cambridge.
Iroquois	4,149	Middleport.
Jackson	5,862	Murphysboro'.
Jasper	3,220	Newton.
Jefferson	8,109	Mount Vernon.
Jersey	7,354	Jerseyville.
Jo Daviess	18,604	Galena.
Johnson	4,114	Vienna.
Kane	16,703	Geneva.
Kendall	7,730	Yorkville.
Knox	13,279	Knoxville.
Lake	14,226	Waukegan.
La Salle	17,815	Ottawa.
Lawrence	6,121	Lawrenceville.
Lee	5,292	Dixon.
Livingston	1,552	Pontiac.
Logan	5,128	Postville.
M'Donough	7,616	Macomb.
M'Henry	14,978	Woodstock.
M'Lean	10,163	Bloomington.
Macon	3,988	Decatur.
Macoupin	12,355	Carlinville.
Madison	20,441	Edwardsville.
Marion	6,720	Salem.
Marshall	5,180	Lacon.
Mason	5,921	Bath.
Massac	4,092	Metropolis City.
Menard	6,349	Petersburg.
Mercer	5,246	Keithsburg.
Monroe	7,679	Waterloo.
Montgomery	6,277	Hillsboro'.
Morgan	16,064	Jacksonville.
Moultrie	3,234	Sullivan.
Ogle	10,020	Oregon City.
Peoria	17,547	Peoria.
Perry	5,278	Pinckneyville.
Piatt	1,606	Monticello.
Pike	18,819	Pittsfield.
Pope	3,975	Golconda.
Pulaski	2,265	Caledonia.
Putnam	3,924	Hennepin.
Randolph	11,079	Chester.
Richland	4,012	Olney.
Rock Island	6,937	Rock Island C.
St. Clair	20,180	Belleville.
Saline	5,588	Raleigh.
Sangamon	19,228	Springfield.
Schuyler	10,573	Rushville.
Scott	7,914	Winchester.
Shelby	7,807	Shelbyville.
Stark	3,710	Toulon.
Stephenson	11,666	Freeport.
Tazewell	12,052	Tremont.
Union	7,615	Jonesboro'.
Vermillion	11,492	Danville.
Wabash	4,690	Mount Carmel.
Warren	8,176	Monmouth.
Washington	6,953	Nashville.
Wayne	6,825	Fairfield.
White	8,925	Carmi.
Whitesides	5,361	Sterling.
Will	16,703	Joliet.
Williamson	7,216	Marion.
Winnebago	11,773	Rockford.
Woodford	4,415	Metamora.

—and of the total population, 846,034 (99.36 per cent.) were white persons—445,544 males and 400,409 females, and 5,436 (0.64 per cent.) free colored persons—2,777 males and 2,659 females; and 736,931 (86.5 per cent.) were Americans, of which number 343,618 were born in this State, 110,593 (12.9 per cent.) were foreigners, and 3,946 of origin not ascertained. The number of natives of Illinois residing in other States was 45,889.

11. In 1810 Illinois contained 12,282 inhabitants; in 1820 the population had increased to 55,211; in 1830 to 157,445; in 1840 to 466,183; and in 1850 to 851,470. A State census taken in 1855 made the population in that year 1,242,917.*

12. The occupations of 215,359 males over 15 years of age were returned in the census of 1850 as follows: occupied in commerce, trade, manufactures, mining, and the mechanic arts, 36,232; in agriculture, 141,099; in labor not agricultural, 29,778; in navigation, 1,644; in law, medicine, and divinity, 3,307; in other pursuits requiring education, 2,071; in government civil service, 701; in domestic service, 376; and in other pursuits not specified, 151.

13. It will thus be seen that agriculture is the predominant interest in this State. It has, however, considerable manufactures, and is actively engaged in mining. Its commerce is also very large, and has been greatly extended by the completion of numerous railroads and a canal which connects the waters of Lake Michigan with the navigable Illinois. To these works, indeed, must be attributed the rapid filling up of the State with a hardy population, and the equally rapid development of its resources.

14. Mining until lately was carried on solely in the lead regions of the northwest, and from this region the annual product, though varying in different years, has averaged about 4,000,000 pounds of pig lead. The largest quantity sent to market in any one year was in 1845, when it was 54,494,360 pounds. Since the discovery of the gold mines in California the production has greatly diminished, and in 1855 was only 30,125,556 pounds. The mineral next in importance is coal, which is largely worked on the Mississippi, opposite, and above, and below St. Louis, and on the Illinois at La Salle and other places. At Duquoin, 36 miles below Centralia, in southern Illinois, immense quantities are raised for the supply of steamers at Cairo. The veins are very rich, and yield a good coal, which is beyond value in a country many localities of which are so destitute of wood. The demand for the railroads and river steamers is constant. Salt is also produced in the south.

15. In 1850 Illinois contained 76,208 farms, which inclosed 12,037,412 (improved 5,039,545) acres of land, or a little more than one third of the total area. The cash value of these lands was $96,133,290, and the value of implements and machinery thereon was $6,405,561. Thus the average size of farms was 158 acres, valued at $1,261, or including implements, etc, $1,345.

16. The livestock upon the farms in 1840 and 1850 amounted to the following enumeration:

	horses, mules, etc.,	neat cattle,	sheep,	swine,
1840	199,235	626,274	395,672	1,095,254
1850	" " 278,226	" 912,036	" 894,043	" 1,915,907

—included among the horses, etc., (in 1850) were 10,573 asses and mules, and among the cattle 294,671 milch cows and 76,156 working oxen. The total value of the stock of 1850 was $24,209,258, and the value of animals slaughtered in the year preceding was $4,972,286. The products of animals in the same year comprised—butter 12,526,543, cheese 1,278,225, and wool 2,150,113 pounds. The wool crop of 1840 amounted to only 650,007 pounds.

17. The grain crops (bushels) for 1840 and 1850 were as follows:

	wheat,	rye,	oats,	Indian corn,	barley,	buckwheat,
1840	3,335,398	88,197	4,988,008	22,634,211	82,251	57,884
1850	" 9,414,575	" 83,364	" 10,087,241	" 57,646,984	" 110,795	" 184,504

—making a total in 1840 of 31,186,717, and in 1850 of 77,527,463 bushels; and the crop of potatoes in 1840 was 2,025,520 bushels, and in 1850 (including sweet potatoes, 157,433), 2,672,294 bushels.

18. Other agricultural products noted in the census of 1850 were—hay, 601,952 tons; hops, 3,551 pounds; clover-seed, 3,427; and other grass-seed, 14,380 bushels; beeswax and honey, 869,444 pounds; flax-seed, 10,787 bushels; flax, 160,063 pounds; maple-sugar, 248,904 pounds; molasses, 8,354 gallons; tobacco, 841,394 pounds; silk cocoons, 47 pounds; and wine, 2,997 gallons. The value of market-garden products was $127,494, and of orchard products $446,049.

19. In 1840 the total value of agricultural products was $11,577,281, and in 1850 it was $57,404,116.

20. The number of establishments engaged in manufactures, mining, and the mechanic

* Another return says 1,306,576.

arts in 1850 was 3,164, and in these was invested an aggregate capital of $6,385,387. The number of hands employed averaged 12,065—11,632 males and 433 females, and the cost of their labor in the year was $3,286,249. The value of raw material consumed was $8,915,173, and the value of the products was $17,236,073.

21. The value of manufactured products (including home-made goods) at decennial periods has been as follows: in 1810, $117,853; in 1820, $100,983; in 1830 (no returns); in 1840, $8,021,582; and in 1850, $19,071,075.

22. Illinois has but a small direct foreign trade. In the year ending 30th June, 1850, the exports amounted to only $17,669, and 1855 to $547,053; and the imports for the same years were valued respectively at $15,705 and $54,509. The clearances in 1850 amounted to 2,041, and in 1855 to 34,380 tons; and the entrances in the two years to 7,338 and 30,280 tons. The shipping owned in 1850 amounted to 21,242, and in 1855 to 53,796 tons; and the shipping built in the State in these years amounted to 1,691 and 1,903 tons.

23. The domestic trade of Illinois is very extensive and incomparably superior to its foreign trade, and is carried on over as fine and complete a system of railroads as any State could require. With little exception, these have been built within the past ten years, and already (1857) their aggregate length is more than 2,500 miles. The principal lines are—the Central, extending through the length of the State from Cairo to Chicago and Dubuque, and having a length of 704 miles; the Galena and Chicago Railroad, and its southern line, extending across the northern section of the State from Chicago to Dubuque and Fulton, and connecting directly with the Iowa railroads and by branches with the Wisconsin railroads; the Chicago and Rock Island, the Chicago, Burlington and Quincy, and the Chicago, Alton and St. Louis railroads, extending from Chicago severally to Rock Island, Quincy, and St. Louis; and four great transverse lines from Vincennes and Terre Haute to St. Louis, from Danville to Hannibal, and from Logansport to Burlington. These, with others of minor importance, constitute a system unsurpassed for the accommodation of a vast commerce; and besides these, numerous railroads from the East, rounding the head of Lake Michigan, have their termini at Chicago. As a central railroad point, indeed, Chicago has no equal; it has direct railroad communication with the whole country, and in every direction. It is also connected with the navigable Illinois and the whole Mississippi valley by the Illinois and Michigan Canal, a channel 100 miles in length, and which admits of the passage of the largest lake vessels.

24. Until the passage of the free banking law, in 1853, Illinois had only one recognized institution, the State Bank. In January, 1856, there were in the State 36 banks and branch banks, with capital amounting to $3,840,946, and liabilities as follows: circulation, $3,420,985; deposits, $1,267,234, and other, $241,903. The assets in the same years comprised—loans and discounts, $337,675; stocks, $3,777,676; real estate, $79,940; other investments, $1,108,148; due by other banks, $2,354,571; notes of other banks, $517,066; specie funds, $37,165, and specie, 759,474.

25. The first constitution of Illinois bears date 26th August, 1818. The constitution on which the government is now based was adopted in convention 31st August, 1847. It gives the right of voting to every white male citizen 21 years of age who has resided in the State one year. The general elections are held on the Tuesday after the first Monday in November.

26. The general assembly consists of 25 members, elected for four years, one half every second year, and a house of representatives of 75 members, elected for two years. Members of both houses must be citizens of the United States; senators 30 years of age, and residents of five years' standing, and representatives 25 years of age, and residents of three years' standing. Representation is by districts, based on white population. The legislature meets at Springfield on the second Monday of January, biennially (odd years).

27. The governor is elected for four years. He must be 35 years of age, a citizen of the United States, and a resident of ten years' standing. The lieutenant-governor is elected on the same basis. The principal administrative officers are the secretary of state, State auditor, State treasurer, etc. The governor's veto is nullified by the votes of a majority of both houses.

28. The judiciary consists of a supreme court, circuit courts, county courts, etc. For supreme court purposes the State is divided into three grand divisions, which have their seats at Mount Vernon, Springfield, and Ottawa, and each division elects one judge for nine years. The jurisdiction of this court is chiefly appellate, and one session is held in each division annually. There are 17 judicial circuits, each of which elects a judge for six years; and county judges are elected for four years. Cook County, in which Chicago is situated, has a special common pleas court, and the city of Chicago a recorder's court. These courts have concurrent jurisdiction with the circuit courts and common pleas in all civil cases, and in all criminal cases except murder and treason. The business of the county courts is chiefly probate.

29. The revenue of the State is derived chiefly from taxes. For the two years ending 30th November, 1850, the receipts into the treasury amounted to $402,179 (from taxes $394,103, and other sources $8,076), and for the two years ending 30th November, 1854, to $408,529. The total resources for the latter period (including sums on hand) amounted to $554,902. The total expenditures for the two periods were respectively $326,126 (ordinary expenses of government $137,196) and $525,877 (ordinary $255,195). On the 31st December, 1854, the State debt amounted to $13,994,615; at the end of 1849 it was $16,627,509. It is expected that the whole will be extinguished by 1866. The value of taxable property in the State in 1850 was $114,782,645, and in 1855, $333,287,474. In 1858 the valuation was assessed at $407,477,367. The assessed valuation of Cook County in the latter year was $45,680,333.

30. The principal institutions supported wholly or in part by the State were the State Hospital for the Insane and the Institution for the Deaf and Dumb at Jacksonville, and the State Prison at Alton.

31. The number of children attending school in 1850 was 182,292, or one in every 4.67 of the total population. The condition of the schools and number of scholars in attendance on the 1st June of that year was as follows:

Classification.	Number.	Teachers.	Scholars.	Income.
Primary and public schools	4,052	4,248	125,725	$349,712
Academies and private schools	83	160	4,244	40,488
Universities and colleges	6	35	442	13,300

—making a total of 4,141 schools, 4,443 teachers, and 130,411 scholars, and a total income of $403,500. The number of persons over 20 years of age unable to read and write was 41,283, of whom 35,336 were Americans and 5,947 foreigners, and 40,054 were white and 1,229 colored persons.

32. In 1855 there were in the State 5,684 public schools, taught by 3,672 males and 2,699 females. The number of white children under 21 years of age was 696,340 (about half the population), of whom 323,393 attended school. The school fund in this year (State, county, and town) amounted to $2,953,594, which yielded interest amounting to $196,281. Illinois has also a State college and seminary fund which amounts to $152,421.

33. The principal collegiate and professional schools in the State in 1855 are named below:

Institutions.	Location.	Founded.	Professors.	Students.	Libraries.
Illinois College	Jacksonville	1829	7	70	4,000
Shurtleff College	Upper Alton	1835	6	40	2,000
McKendree College	Lebanon	1835	10	79	7,500
Knox College	Galesburg	1837	7	56	3,600
University of St. Mary	Chicago	1844	12	—	6,000
Illinois State University	Springfield	1851	8	119	1,000
Universalist Centenary College	Salesbury	1855	—	—	—
Alton Theol. (Bapt.) Seminary	Upper Alton	1835	—	—	—
St. Mary's (R. C.) Theol. Sem.	Chicago	1844	—	—	—
Rush Medical College	Chicago	1842	6	79	—

34. The most numerous religious denominations in Illinois are the Methodist, Baptist, and Presbyterian, which together include three fourths of the whole population, and individually about a third, a fourth, and a fifth of the whole. Next in numerical order are the Christian and the Roman Catholic; and after these the Lutheran, Congregational, and Episcopal, etc. The whole number of churches in the State in 1850 was 1,223, with accommodation for 486,576 persons; and the value of church property was estimated at $1,482,185.

35. Springfield, the capital, is situated in the valley of the Sangamon, and about three miles south of the river, and nearly in the geographical center of the State. Latitude 39° 48′, and longitude 89° 33′. The city is laid out rectangularly, with wide streets and a public square in the center, on the latter of which is the State House and public buildings. The government located here in 1840, since which year its prosperity has been onward, until it has become an important commercial center. At this point the Great Western is crossed by the Chicago, Alton and St. Louis Railroad, which together give it access to the markets in every direction. The country around is a fine prairie and thickly settled, and abounds with bituminous coal. Population (1840) 2,579, and (1850) 4,533.

36. Chicago, the great commercial metropolis, is built on both sides of the Chicago River, and along the southwestern shore of Lake Michigan. Latitude 41° 52′ 20″, and longitude 87° 35′. The main body of the river sets back about a mile into the city, and then divides into two branches, both of which have a nearly uniform depth of 12 to 15 feet, all making a commodious and almost unlimited harbor. The city borders on a wide, rich, and beautiful prairie, handsomely diversified by groves and strips of timber, and interspersed with gardens and elegant villas. The bar at the entrance to the river has been much reduced, and piers have been extended into the lake to prevent accumulations. The depth, indeed, is now sufficient for the largest lake vessels and steamers.

37. In 1830 Chicago was a mere trading post, and in 1840 it had only 4,470 inhabitants. Since the last-named year, however, its population has increased rapidly, and as follows: in 1843, 7,580; 1845, 12,088; 1846, 14,169; 1847, 16,859; 1848, 20,085; 1849, 23,047; 1850, 28,269; 1851, 32,712; 1852, 38,733; 1853, 60,652; 1854, 65,872, and 1855, 83,509. In 1839 the assessed valuation of real and personal property in the city amounted to $236,842, in 1850 to $8,562,717, and in 1855 to $24,392,239.



COURT-HOUSE, CHICAGO.

38. Fronting on the lake, the city has direct shipping connection with all the ports of the Northern States and Canada; and by means of its extensive land lines its commerce reaches to the Atlantic and to and beyond the banks of the Mississippi and southward to the Gulf of Mexico. Chicago also reaches its immediate back country by numerous plank-roads; and the Illinois and Michigan Canal connects its waters with the Illinois and Mississippi rivers, fur-

nishing a water-line from the great lakes to the Gulf, and the vast rivers which, rising in the Rocky Mountains and the Alleghanies, reach the Mississippi at various and distant points.

39. The result of all the energy and enterprise expended on these works has been a success far exceeding the anticipations of the most sanguine of their projectors. Chicago has experienced an impetus which will carry it forward to the highest eminence as a commercial center, and the whole State has developed its resources to a measure beyond precedent. Every industry has been quickened, and population and capital have sought a center which promises at no far distant day to outcount the highest estimate of probability.

40. The city is laid out in rectangular streets and avenues. The northern section of the city and the lake shore are occupied by handsome residences; while the great business of the city is transacted south of the main river and along the banks of the south branch, which are lined with docks and large warehouses. Many of the streets are paved and lighted with gas. The most remarkable public buildings are the new Court House, the Merchants' Exchange, the Marine Hospital, the Rush Medical College, the new Custom House (which contains also the United States courts and Post Office), etc.; and many of the churches are massive and elegant structures. Schools are numerous, and Chicago has a very extensive and influential public press and several excellent literary and scientific institutions.

41. But the true distinction of this city is found in its vast commercial accommodations—in its wharves, warehouses, depôts, hotels, etc., which are on a most magnificent scale, and indicate the immense value of its trade. Railroads traverse its streets, and, interlacing one with the other make a very network of iron, and cars, freighted with rich merchandise and travelers, are constantly moving in and out, from and to every point of the compass. Meanwhile the harbor is crowded with steamers, propellers, and other lake and canal craft. Indeed, the commerce, of which these are the carriers, is immense, and in 1855 was valued as a whole, imports and exports, at more than 200 million dollars, or one third of the aggregate of the commerce of the Northern lakes. In the same year the coastward exports of domestic products and manufactures alone were valued at $33,985,165. As a grain market, Chicago is the first in the world, and as to its lumber trade, it exceeds every other port in the West.

42. The trade of Chicago with foreign ports is also respectable. In 1854–5 there were cleared 59 vessels (34,380 tons), and there were entered 52 vessels (30,280 tons). In 1856 a vessel was dispatched from Chicago to Liverpool, and after passing the lakes, canals, and St. Lawrence, arrived there after a rapid and successful passage. This experiment was made to test the practicability of a direct European commerce. The shipping owned at this port in 1855 amounted to 50,972 tons, of which 3,207 tons represented the steam marine. In the same year there were built here 12 vessels, measuring 1,742 tons.

43. The advance of Chicago in manufactures has been equally rapid as in commerce. The following returns prove this:

	1854.	1855.	1856.
Capital invested	$4,220,000	$6,295,000	$7,759,400
Hands employed	5,000	8,740	10,563
Manufactures produced	$7,870,000	$11,031,491	$15,515,063

The number of establishments (1856) propelled by steam was 137; the quantity of cast-iron consumed was 18,402 tons; of wrought-iron 11,196 tons; of coal 38,516 tons, and wood 3,000 cords.

44. This city, now one of the first commercial places in the world, was thus spoken of by Latrobe, an intelligent traveler, who visited Chicago in 1833: "This little mushroom town is situated on the verge of a level tract of country, for the greater part consisting of open prairie lands, at a point where a small river, whose sources interlock—in the wet season—with those of the Illinois River, enters Lake Michigan. It, however, forms no harbor; and vessels must anchor in the open lake, which spreads to the horizon on the north and east in a sheet of uniform extent." What a contrast between the Chicago of 1833 and the Chicago of the present day; and the writer of a quarter of a century ago, how little he expected his "little mushroom town" to expand into one of the first cities of the country! Had a prophet then told him that such would be the future of the embryo city, his prognostication would have been received as the emanation of a crazy brain; but who now doubts that this city will, in less than 10 years from the present day, contain 500,000 souls!

45. Alton is a port of entry on the Mississippi, 23 miles above St. Louis and three miles above the mouth of the Missouri. It is a rapidly growing town, and with its favorable position for trade and excellent landing, promises to become a very important place. It is connected with Chicago and Terre Haute by railroad, and also with Illinoistown, opposite to and a suburb of St. Louis; and steamboats ply regularly to and from all important river towns. Alton is a well-built town, with wide streets and ample squares, and contains the State Prison and other public buildings. Upper Alton is the seat of Shurtleff College and a Baptist theological seminary. In the vicinity are limestone and stone-coal. Population (1850) 3,585, and (1855) about 8,000. Belleville is a town 16 miles southeast Illinoistown, with which it is connected by railroad. It has flourishing manufactures and an active trade in agricultural products and coal, which abound in this section. Population (1855) about 6,000.

46. Cairo, at the extreme southern point of the State, where the Ohio joins the Mississippi, and the terminus of the Illinois Central Railroad, is a very important city and port, and may be considered as the geographical center of the commerce of the Mississippi and its affluents. From this place also diverge the Mobile and Ohio and the Cairo and Fulton railroads. Its site, however, is low, and naturally subject to inundation; but by extensive levees has been vastly improved and probably protected from the annual floods. Within a short period past many large warehouses and other commercial facilities have been erected, and already an extensive business has been inaugurated. Regular steamers ply to and from all the ports of the Ohio, Illinois, Missouri, etc. About two miles higher up the Ohio another site, called Mound City, to which a branch of the Illinois Central Railroad extends, has been settled, and will compete with Cairo for the commerce which must eventually be concentrated in this vicinity. Centralia is a new town on the Central Railroad, 110 miles north Cairo, and the point from which the Chicago Branch diverges.

47. Dunleith is a new and thriving town on the Mississippi, opposite Dubuque, and at the terminus of the Central and the Galena and Chicago Union railroads. It has extensive warehouses, depôts, etc., and will soon be connected with Dubuque by a bridge. Freeport is a busy town on the Pecatonica, and the terminus of the Galena and Chicago Union Railroad, which here joins the Central Railroad, 121 miles west Chicago. The Racine and Mississippi Railroad also passes through this place. These roads give it access to all the great markets. Population (1850) 1,436, and (1855) about 4,500. Fulton, on the Mississippi, 136 miles west Chicago, is the river terminus of the Chicago, Fulton and Iowa Railroad. It is a thriving town and has an active trade. On the opposite side of the river is Clinton, the eastern terminus of the Chicago, Iowa and Nebraska Railroad.

48. Galena is situated on Fevre River, six miles from its confluence with the Mississippi, and 171 miles by railroad west Chicago. It is the chief town of the lead region, and a place of great commercial importance, being an entrepôt between Minnesota and Chicago. Regular



GALENA.

lines of steamboats ply to and from St. Paul, Dubuque, etc., and it has also railroad connection north and south by the Central Railroad, which passes through it. It is the seat of Knox College. Population (1850) 2,745, and (1855) about 8,000.

49. Illinoistown is situated on the Mississippi, opposite St. Louis, and is the terminus of all the eastern railroads approaching St. Louis, of which city it is, in fact, a suburb. Coal is very abundant in the vicinity, and largely mined. Population about 3,000.

50. Jacksonville is situated on the Great Western Railroad, 33 miles west Springfield. It is an active trading town, and the seat of Illinois College and of the State institutions for the blind and the deaf and dumb. Railroads are projected hence to Alton, Peoria, etc. Population (1850) 2,745, and (1855) about 5,000. Joliet is a thriving town on Des Plaines River and Illinois and Michigan Canal. It is also an important station on the Chicago and Rock Island and the Chicago, Alton and St. Louis railroads, and is connected directly with the East by the Joliet and Northern Indiana Railroad. Population (1850) 2,659, and (1855) about 6,000.

51. Kaskaskia is built on the river of the same name, two miles back from the Mississippi. It is the oldest town in Illinois, and, perhaps, the oldest in the States north of the Ohio, having been settled by the French in 1673. It was the first capital of the State, and so remained until the removal to Vandalia, in 1818.

52. La Salle is situated at the outlet of the Illinois and Michigan Canal, 100 miles southwest Chicago. The Chicago and Rock Island and the Central Railroad intersect at this town. It has a large trade, estimated at $4,000,000 annually, and great facilities for manufactures. In the vicinity are extensive beds of bituminous coal. Population (1853) 3,201.

53. Naples, on the Illinois, and the present terminus of the Great Western Railroad, 55 miles west Springfield, is a place of considerable trade and a principal shipping port on the river. Steamboats ply hence to St. Louis and other ports. Population about 2,000.

54. Nauvoo City is built near the head of the upper rapids of the Mississippi, and 50 miles above Quincy. It was founded by the Mormons in 1840, and once contained 15,000 to 18,000 inhabitants. The Temple, built of polished limestone, was one of the grandest edifices in the country; it was destroyed by fire in 1848. On the exodus of the Mormons to Utah, Nauvoo was purchased by the Icarian Socialists under M. Cabet, and is now inhabited by them. The town has a good landing. Population about 2,000.

55. Oquawka, on the Mississippi, 10 miles above Burlington, is a town of about 1,000 inhabitants, and has a considerable produce and shipping business. It is one of the western termini of the Peoria and Oquawka Railroad, which is now completed to a junction with the Chicago, Alton and St. Louis Railroad, 143 miles east, and will be continued to Logansport in Indiana. East Burlington is the other western terminus of this important railroad.

56. Peoria, one of the largest and most important cities of the State, is beautifully situated on Peoria Lake, an expansion of the Illinois River, 70 miles north Springfield. It has thus a water connection with St. Louis and Chicago—with the latter through the Illinois and Michigan Canal; and by railroad with Chicago, Rock Island, Burlington, and Quincy, and railroads are in progress that will connect it with Logansport and Toledo, Hannibal and Jacksonville, etc. It is a place of extensive trade, and from its proximity to coal (now extensively mined in the immediate vicinity), and easy access to the great markets, it bids fair to become one of the largest manufacturing towns of the West. Among its establishments are several extensive machine shops. The streets and stores are lighted with gas. Population (1850) 5,095, and (1855) 11,926. The Illinois is spanned at this point by a great railroad bridge. Peru, one mile below La Salle, on the Illinois River, at the head of natural navigation, has an active trade by river, canal, and railroad, which connect it with all the

great markets. The Chicago and Rock Island and the Central railroads intersect in the vicinity, and the Illinois and Michigan Canal navigation commences immediately above the town. Population (1855) about 5,000.

57. Quincy, one of the largest and most flourishing cities of the State, is situated on the Mississippi, 18 miles above Hannibal, and at the terminus of the Quincy and Chicago Railroad, 268 miles southwest Chicago and 100 miles west Springfield. Railroads are also being built to connect it with the Great Western Railroad at Naples and with the Hannibal and St. Joseph Railroad at Palmyra. The city is built on a limestone bluff, 125 feet above the river, and is handsomely laid out. Its trade by the river and by railroad is large and increasing, and among its industrial establishments are lumber-yards, distilleries, founderies, machine shops, flouring mills, sash and blind factories, carriage factories, etc., and large cooperages. Population (1850) 6,911, and (1855) about 12,000.

58. Rock Island City is situated on the Mississippi, two miles above the mouth of Rock River, and by the Chicago and Rock Island Railroad 182 miles west-by-south Chicago. It is built at the foot of the upper rapids, which extend about 15 miles up the river, and in low stages of the water interrupt navigation. The southern end of Rock Island, in the Mississippi, lies opposite the city, and forms one of the buttresses of an immense railroad bridge, which connects it with Davenport on the Iowa shore. The city has flourishing manufactures and a very extensive trade, and promises to become one of the most important towns of the State. Population (1850) 1,711, and (1855) about 10,000.

59. Vandalia, formerly capital of the State, is situated on the Kaskaskia River, where it is crossed by the National Road, 80 miles south-southeast Springfield. Latitude 38° 50′, and longitude 89° 2′. The Central Railroad also passes through the town, 142 miles north Cairo, and will here be intersected by the Atlantic and Mississippi Railroad. After the removal of the government offices to Springfield, Vandalia declined, but is again reviving, and at the present time numbers some 1,500 inhabitants.

60. The name which now pertains exclusively to this State was, during a greater part of the last century, bestowed upon all that vast country which lies northwest of the Ohio. The first settlements were made by the French, and were the consequences of the enterprises of La Salle in search of the Mississippi. Kaskaskia, Cahokia, and other towns were laid out about the year 1673. At the beginning of the eighteenth century the settlements on the Illinois are represented to have been in a flourishing condition, and Kaskaskia had become a considerable town before any great progress had been made in the settlements on the Lower Mississippi.

61. From the beginning to the middle of the century, history says little respecting this territory. As the colonies of France and England extended, however, disputes arose respecting boundaries. The French, anticipating a struggle as early as 1749, strengthened themselves on the lakes, the Ohio, the Wabash, and the Illinois, and other parts of the valley to which they laid claim. The British, on the other hand, claimed the country on the Ohio in virtue of the charter the king had granted. The war which ensued closed in 1763, and France was despoiled of its whole American possessions east of the Mississippi. During the continuance of the country as a British dependency nothing of importance seems to have occurred.

62. At the peace of 1783 the Illinois country fell to the United States, and the territory northwest of the Ohio was claimed by Virginia and other States, as included in their charters. These claims, however, were ceded to the general government, and by the ordinance of 1787 a territorial government was established over the whole region. Ohio and Indiana were the first States taken from this territory, and Illinois the third; the last named having been formed into a separate government in 1809, and was admitted as a State of the Union on the 3d of December, 1818.

STATE OF MISSOURI.



1. Missouri is situated between latitudes 36° 30′ and 40° 30′ north, and longitudes 88° 55′ and 95° 40′ west, and is bounded on the north by Iowa, on the east by the Mississippi River (separating it from Illinois, Kentucky, and Tennessee), on the south by Arkansas, and on the west by the Indian Territory and Kansas Territory.

2. The greatest extent of the State, east and west, is on the parallel of the mouth of the Ohio, where it measures about 320 miles. In the north it is from 80 to 100 miles narrower. North and south the extent is 278 miles, but there is a narrow tongue of land between the St. Francis and Mississippi rivers, which extends half a degree beyond the general body of the State into Arkansas, and which is not included in this admeasurement. Included in these limits Missouri has a superficies of 67,380 square miles, and occupies 2.29 per cent. of the total area of the United States.

3. The Missouri River divides the State into two parts, having different physical characteristics. South of that river, as far west as the Osage, the surface is rolling, and gradually rises into a hilly and mountainous country, forming the outskirts of the Ozarks. Beyond the Osage, at some distance, commences a vast expanse of prairie, which stretches indefinitely westward. The chief geological formations in all this region are solid strata of carboniferous and silurian limestone and sandstone, reposing on or around the unstratified primary rocks. In the hilly and broken region, which includes the greater part of the State south of the Missouri, the soil is formed of disintegrated sandstone, sienite, and magnesian limestone. The soils formed of the last two materials are fertile, but in some parts of the mineral region their productiveness is impaired by the admixture of iron oxyds. Other districts, as Bellevue valley, and the valleys of the Maramec, Gasconade, and Osage, are well fitted for cultivation or for pasture; but around the head-waters of the White, Eleven Points, Currents, and Big Black, where the land is most mountainous, the soil is formed of semi-vitreous sandstone, and is generally unproductive, although it supports a magnificent growth of yellow pine, valuable for timber. The intervening valleys, however, are decidedly fertile, but of small extent. Immediately south of the Missouri the lands are partly sandy and partly calcareous, and in general, where alumina and clays sufficiently abound, the soil is excellent and well adapted for general agriculture.

4. That part of the State lying north of the Missouri is in no place mountainous, but either rolling or quite flat. The soils are equal to the best intervale lands, and cultivation is here in a more advanced state than to the south of the river. Its geological substratum is chiefly carboniferous limestone; and this district is also distinguished for its vast measures of bituminous coal. The soils are calcareous and arenaceous, with some small extent of the aluminous. The calcareous soils, which predominate, are fertile, particularly near the margins of rivers; of this character are the lands in the extreme west along the Missouri, and many of the interior counties are of nearly equal fertility. In the eastern parts of this region arenaceous soils prevail, and are comparatively barren. These lands are found on the flanks of the prairies which extend northward to the head-waters of the Mississippi River.



FIRE ON THE PRAIRIE.

5. In the southeastern section of the State, from Cape Girardeau to the northern part of Arkansas, there are large tracts of marshy and inundated lands.

6. Omitting the Mississippi, which washes the eastern border for 470 miles, the great river, and the one from which it derives its name, is the Missouri. This fine stream rises in the Rocky Mountains, not far from the sources of the Columbia, 3,096 miles from its entrance into the Mississippi, the last 400 or 500 miles of its course alone lying within the limits of this State. The trough through which its waters flow is from four to five miles wide, and is bounded by rocky limestone hills, which rise to the height of from 100 to 300 feet. Nearly all the bottoms are on its north bank, and are not ordinarily subject to inundation, and are covered by a luxuriant vegetation both of trees and herbs, in which respects they differ widely from those of the Mississippi. The stream is rapid, and can only be ascended readily by steam-power.

7. Of the tributaries of the Missouri, the largest is the Osage, which joins it 120 miles from its mouth. The Gasconade is important for the supplies of plank and timber it furnishes to the country below. The principal tributaries from the north are Grand and Chariton rivers, both navigable, and composed of numerous branches which drain a large surface. Farther west, and also falling into the Missouri, are the Platte or Nebraska, the Nodaway, and others.

8. The Maramec, a beautiful river, runs through the mineral regions, and flows into the Mississippi 18 miles below St. Louis; and farther south are the rivers St. Francis and White, which pass into Arkansas. The southwestern section is watered by several tributaries of the Arkansas River, but none of these are voluminous or fit for navigation. North of the Missouri are Salt and Copper rivers, which empty into the Mississippi. Many of the rivers of Missouri are obstructed by fallen trees—especially the Grand, Osage, Salt, Maramec, and St. Francis.

9. Most of the useful minerals exist in Missouri; and among these may be enumerated lead, iron, copper, silver, zinc, manganese, coal, salt, and clays; also diamonds, chalcedony, etc. The mineral region occupies an area of about 18,000,000 acres. It extends from the head-waters of the St. Francis to the Maramec River, a distance of about 70 miles in length, and from the Mississippi, in a southwesterly direction, a distance of about 60 miles. The elevation of the district above the level of the sea varies from 600 to 1,200 feet.

10. The lead mines have been worked since the first settlement of the country. The ore is chiefly in the forms of sulphuret and carbonate. The lead region extends over the counties of Madison, St. Francis, St. Louis, Washington, etc. Silver to the amount of six or seven per centum is generally found intermixed in the sulphuret.

11. Iron is found in the greatest abundance in the form of hematite, and the ochery, micaceous, and red oxyds. The ores exist throughout the mineral region, and the mountains forming the eastern extremity of the Ozarks, known as Iron Mountain and Pilot Knob, consist of vast masses of the micaceous oxyd which yields the finest specimens of iron. The quantity of the mineral is such that it is calculated that 600,000,000 tons of pig-iron may be obtained from these mountains alone—a sufficiency for the whole world for a century! The mines of Elba, Sweden, and Norway together do not contain an equal amount,

12. Copper is chiefly found in the south and west portions of the mineral region, but exists in other parts; the ore is generally pyritous, but oxyds and carbonates are frequently found. Tin has been found near Caledonia. The coal measures are continuous from those of Illinois, and cover a large surface in central and northern Missouri. The coal is principally bituminous, and at Côté sans Dessein it assumes the form of cannel.

13. The rocks found in the State comprise every variety of building stone, marbles, porphyries, and sienite. Gypsum is also abundant, and a great variety of clays useful in the arts are met with, from which brick, pottery, and delft-ware are largely manufactured. Kaölin, or porcelain clays, and pipe-clays exist near Caledonia and Cape Girardeau.

14. Except on the prairies, Missouri is well timbered. The river-bottoms in particular are covered with a luxuriant growth of oak, elm, ash, hickory, cotton-wood, and black and white walnut. In the more barren districts are found white and pin oak, and sometimes forests of yellow pine. The crab-apple, paw-paw, and persimmon are abundant, as also the hazel and pecan. The general capacity of the country for agriculture is unsurpassed, and every kind of grain and esculent vegetable, with flax or cotton, find in one part or another a congenial soil and climate. Tobacco is also a staple product. The prairies afford fine ranges of natural pasture for cattle, and hogs are raised without trouble in the forests.



FARMING SCENE.

15. In 1850 Missouri contained 682,044 inhabitants or 10.12 to every square mile, being 2.94 per cent. of the total population of the Union. This population was included in 100,890 families, and occupied 96,849 dwellings. Its distribution into the counties was as follows:

Counties.	Population.	County Seats.
Adair	2,342	Kirksville.
Andrew	9,433	Savannah.
Atchison	1,678	Linden.
Audrain	3,596	Mexico.
Barry	3,467	Cassville.
Bates	3,669	Papinsville.
Benton	5,015	Warsaw.
Boone	14,979	Columbia.
Buchanan	12,975	Sparta.
Butler	1,616	Cane Creek.
Caldwell	2,316	Kingston.
Calloway	13,827	Fulton.
Camden	2,338	Erie.
Ca. Girardeau	13,912	Jackson.
Carroll	5,441	Carrollton.
Cass	6,090	Harrisonville.
Cedar	3,361	Fremont.
Chariton	7,514	Keytesville.
Clarke	5,527	Waterloo.
Clay	10,332	Liberty.
Clinton	3,786	Plattsburg.
Cole	6,696	Jefferson C'y.
Cooper	12,950	Booneville.
Crawford	6,397	Steelville.
Dade	4,246	Greenfield.
Dallas	3,648	Buffalo.
Daviess	5,298	Gallatin.
De Kalb	2,075	Maysville.
Dodge	375	Butler.
Dunklin	1,229	Kennet.
Franklin	11,021	Union.
Gasconade	4,996	Hermann.
Gentry	4,248	Athens.
Greene	12,785	Springfield.
Grundy	3,006	Trenton.
Harrison	2,447	Bethany.
Henry	4,052	Clinton.
Hickory	2,329	Hermitage.
Holt	3,957	Oregon.
Howard	13,969	Fayette.
Jackson	14,000	Independence.
Jasper	4,223	Carthage.
Jefferson	6,928	Hillsboro'.
Johnson	7,464	Warrensburg.
Knox	2,894	Edina.
La Clede	2,498	Lebanon.
La Fayette	13,690	Lexington.
Lawrence	4,859	Mount Vernon.
Lewis	6,578	Monticello.
Lincoln	9,421	Troy.
Linn	4,058	Linnæus.
Livingston	4,247	Chillicothe.
M'Donald	2,236	Rutledge.
Macon	6,565	Bloomington.
Madison	6,003	Fredericktown
Marion	12,230	Palmyra.
Mercer	2,691	Princeton.
Miller	3,884	Tuscumbia.
Mississippi	3,123	Ohio City.
Moniteau	6,004	California.
Monroe	10,541	Paris.
Montgomery	5,489	Danville.
Morgan	4,650	Versailles.
New Madrid	5,541	New Madrid.
Newton	4,268	Neosho.
Nodaway	2,118	Maryville.
Oregon	1,432	Thomasville.
Osage	6,704	Linn.
Ozark	2,294	Rockbridge.
Perry	7,215	Perryville.
Pettis	5,150	Georgetown.
Pike	13,609	Bowling Green
Platte	16,845	Platte City.
Polk	6,186	Bolivar.
Pulaski	3,998	Waynesville.
Putnam	1,636	Putnamville.
Ralls	6,151	New London.
Randolph	9,489	Huntsville.
Ray	10,373	Richmond.
Reynolds	1,849	Lesterville.
Ripley	2,880	Doniphan.
St. Charles	11,454	St. Charles.
St. Clair	3,556	Osceola.
St. Francis	4,964	Farmington.
Ste Genevieve	5,318	Ste Genevieve.
St. Louis	104,978	St. Louis City.
Saline	8,843	Marshall.
Schuyler	3,287	Lancaster.
Scotland	3,782	Memphis.
Scott	3,182	Benton.
Shannon	1,199	Eminence.
Shelby	4,253	Shelbyville.
Stoddard	4,277	Bloomfield.
Sullivan	2,983	Milan.
Taney	4,373	Forsyth.
Texas	2,312	Houston.
Warren	5,860	Warrenton.
Washington	8,811	Potosi.
Wayne	4,518	Greenville.
Wright	3,387	Hartville.

—of the total population (1850) 592,004 (86.8 per cent.) were white persons—312,987 males and 279,017 females; 2,618 (0.38 per cent.) were free colored persons—1,361 males and 1,257 females, and 87,422 (12.82 per cent.) were slaves—43,484 males and 43,938 females; and of the free population white and colored 520,826 (87.6 per cent.) were American born, of which number 277,604 were born in this State; 72,474 were foreign born, and 1,322 were of origin not ascertained. In other States of the Union there were resident 37,824 Missourians.

16. Missouri in 1810 contained 20,845 inhabitants; in 1820, 66,586; in 1830, 140,455; in 1840, 383,702, and in 1850, 682,044. In 1855 its population was estimated at 831,215.

17. Of 128,175 free male persons over 15 years of age engaged in industrial pursuits, the proportion employed in each branch was as follows—30,098 in commerce, trade, manufactures, mechanic arts, and mining; 65,561 in agriculture; 20,326 in labor not agricultural; 308 in the army; 2,471 in sea and river navigation; 2,893 in law, medicine, and divinity; 3,147 in other pursuits requiring education; 767 in government civil service; 1,458 in domestic service, and 1,149 in unclassified employments.

18. The bulk of the population is employed in agriculture, but in mining and manufactures much progress has been made, and commerce in all its branches is largely engaged in. Lead, iron, copper, and coal, to which we might add numerous other valuable minerals, have long been mined in Missouri. The lead mines have been wrought since the earliest settlement of the country. The ores invariably contain silver. The best of iron is mined in this State; but copper is perhaps destined to become its most valuable mineral product. Coal is mostly found to the north of Missouri River.

19. The number of farms in Missouri in 1850 was returned by the census of that year at 54,458, covering 9,732,670 (improved 2,938,425, and unimproved 6,794,245) acres of land, valued at $63,225,543; and the value of implements and machinery thereon was $3,981,525. Thus the average size of farms was 179 acres, and the average value $1,161, or including implements, etc., $1,234.

20. The quantity of livestock in the State at the two census periods of 1840 and 1850 was as follows:

	horses, mules, etc.,	neat cattle,	sheep,	swine,
1840	196,032	433,875	348,018	1,271,161
1850	266,986	791,510	762,511	1,702,625

—among the horses, etc., in 1850 were 41,667 asses and mules, and among the neat cattle 230,169 milch cows and 112,168 working oxen; and the total value of animals in that year was $19,887,580. The products of animals in 1849–50 consisted of—butter 7,834,359, cheese 203,572, and wool 1,627,164 pounds; and the value of animals slaughtered for market was $3,367,106. In 1840 the wool crop amounted to 562,265 pounds.

21. The cereal crops (bushels) in the two years 1849 and 1850 were comparatively as follows:

	wheat,	rye,	oats,	Indian corn,	barley,	buckwheat,
1840	1,037,886	68,608	2,234,947	17,332,524	9,801	15,318
1850	2,981,652	44,268	5,278,079	36,214,527	9,631	23,641

—making a total crop in 1840 of 20,698,584, and in 1850 of 44,551,808 bushels. Potatoes in 1840, 783,768, and in 1850 (including "sweet," 335,505), 1,274,511 bushels; and peas and beans in 1850, 46,017 bushels.

22. The special crops of Missouri were as follows:

1840	hemp and flax	18,011 tons	and tobacco 9,067,913 pounds.
1850	flax 314 and hemp 16,028 = 16,342	"	" 17,113,784 "

—and in 1840 Missouri produced 121,122 pounds of cotton.

23. The other crops of 1849–50 consisted of—hay 116,925 tons, hops 4,130 pounds, clover-seed 619, and other grass-seed 4,346 bushels, beeswax and honey 1,328,972 pounds, flax-seed 13,696 bushels, maple-sugar 178,910 pounds, molasses 5,636 gallons, rough rice 700 pounds, silk cocoons 186 pounds, and wine 10,563 gallons. The value of market-garden products was $99,454, and of orchard products $514,711.

24. The total value of the products of agriculture in Missouri in 1840 was $9,755,615, and in 1850, $34,619,650.

25. Missouri in 1850 contained 3,029 establishments engaged in manufactures, mining, and the mechanic arts. These in 1850 employed an aggregate capital of $9,079,695, consumed raw material valued at $12,446,738, engaged 15,977 males and 873 females, paid for labor $3,184,764, and turned out manufactured articles to the value of $23,749,265. In 1840 the value of the manufactured goods produced was only $4,797,215.

26. The value of home-made manufactures in 1840 was $1,149,544, and in 1850 $1,674,705; and hence, with the addition of these values, the aggregate value of manufactures in the years respectively was $5,946,759 and $25,423,970.

27. Missouri has no direct foreign commerce. Its domestic trade, however, is immense, and centering at St. Louis—the commercial dépôt of the upper section of the Mississippi valley—extends in every direction. Its steamers are found at New Orleans and at the Falls of St. Anthony, at Chicago, at Pittsburg, at Cincinnati, and at Louisville, and at the head of navigation on the Missouri River. Between 3,500 and 4,000 steamers arrive and depart annually. The interior is reached by river, railroad, and turnpike, and is generally well accommodated with the means of intercommunication. In 1850 the shipping owned in the State amounted to 28,907 (steam 24,955) tons, and in 1855 to 60,592 (steam 52,477) tons; and the shipping built in 1850 to 1,353, and in 1855 to 5,084 tons.

28. The railroads of Missouri, with one exception, have their initial point at St. Louis. These are—the Pacific Railroad, which has a direct westerly course to the Kansas line of 280 miles, and its southwestern branch, which takes the course indicated by its name, with a length of 282 miles; the North Missouri Railroad, which passes northwesterly to the southern line of Iowa, with a length of 231 miles, and the St. Louis and Iron Mountain Railroad, which has its south terminus at the Pilot Knob, 85 miles distant from St. Louis. The Hannibal and St. Joseph's Railroad extends directly across the State, 207 miles from Hannibal on the Mississippi (where it connects with the Illinois railroads) to St. Joseph's on the Missouri. Other railroads in progress or projected are—the Cairo and Fulton, the length of which in this State is 77 miles, and the following: the Keokuk and Kansas, the Canton and Bloomfield, the Lexington and Daviess County, and the Platte County railroads. The proportion of these lines completed at the end of 1857 was about 360 miles, and so far progressed are other portions of the system that additional sections are opened at brief successive periods. The building of these roads has been greatly aided by the State, which guarantees the bonds of the companies.

29. The six banks and branch banks of Missouri in December, 1850 and 1855, had capital amounting to $1,209,131 and $1,215,405. Their liabilities at the two periods consisted of—circulation $2,522,500 and $2,805,660, deposits $1,098,981 and $1,331,126, and dues to other banks $76,280 and $172,425; and their assets—loans and discounts $3,533,463 and $4,393,029, real estate $123,928 and $104,622, other investments (1850) $273,317, due by other banks $66,028 and $28,331, notes of other banks $37,510 and $33,870, and specie $1,198,263 and $1,355,050.

30. The constitution of Missouri grants the right of voting to every free white male citizen of the United States, 21 years of age, who has been a resident in the State for the three years next preceding an election, and for three months in the place where the election is held. The general election is held on the first Monday in August.

31. The general assembly is composed of a senate of 18 members, elected in districts for four years, one half biennially, and a house of representatives of 49 members, elected for two years. Senators must be citizens of the United States, 30 years of age, and have resided in the State five years, and representatives must be citizens, and have been resident in their respective districts for two years. This legislature meets at Jefferson City biennially (*even* years), in the last Monday of December.

32. The governor and lieutenant-governor are elected by the people at large for four years, and can not serve two terms successively. The qualifications of both are alike—they must be native citizens of the United States, or a citizen thereof in 1820, or an inhabitant at the time of the cession in 1803. The principal administrative officers are the secretary of state, superintendent of public schools, State auditor, State treasurer, etc. These officers are all required to reside at the capital during their terms of office.

33. The judiciary consists of the supreme court, 16 circuit courts, county courts, etc. The supreme court has three justices elected for six years, and holds two sessions annually, one at Jefferson City and one at St. Louis. A circuit court is held twice a year in each county. Its jurisdiction extends to all matters of tort and contract over $90 where the demand is liquidated, and over $50 where the agreement is parol. It has exclusive com-

mercial jurisdiction, and a supervision over the county courts and justices of the peace, subject to the correction of the supreme court. The judges of the circuit courts are elected in their respective circuits for six years. The jurisdiction of county courts is limited to matters of probate and local affairs; the county court is composed of three justices elected for four years. In addition to the circuit and county courts, St. Louis has a court of common p'eas (with jurisdiction similar to the circuit court), a criminal court, a district court of probate, a recorder's court, and a land court, having sole jurisdiction in St. Louis County, in suits respecting lands, actions of ejectment, dower, partition, etc. The judges of the common pleas and criminal courts are elected for the same term as the circuit judges. Hannibal, St. Joseph, Cape Girardeau, Independence, and Weston have also separate courts of common pleas.

34. The revenue of the State is derived chiefly from taxation polls, licenses, and bank stock dividends. The resources of the treasury for the two years ending 30th September, 1850, amounted to $1,192,493, and for the two years ending 30th September, 1855, to $1,007,113; and the expenditures for the periods respectively to $871,818 and $532,585. The State debt proper in 1855 amounted to $602,000, on which the annual interest was $35,805. The State has also lent its credit to railroad companies to the large amount of $15,930,000, and will extend their species of indebtedness. The amount of bonds already authorized, and including the above, is nearly twenty-five million dollars. As security for these the State holds mortgages on the roads and their branches. The assessed valuation of taxable property in Missouri in 1850 was $98,595,463, and in 1855, $223,948,731.

35. The principal institutions supported wholly or in part by the State are the State Lunatic Asylum and the Asylum for the Deaf and Dumb at Fulton, the Asylum for the Blind at St. Louis, and the State Prison at Jefferson City.

36. In 1850 the number of children attending school as returned by families was 95,285, or one in every 6.23 of the free population. The number attending school and the general statistics of the schools on the 1st June of that year were as follows:

Classification.	Number.	Teachers.	Scholars.	Income.
Primary and public schools	1,570	1,620	51,754	$160,770
Academies and private schools	204	368	8,829	143,171
Universities and colleges	9	65	1,009	79,528

—making a total of 1,783 schools, 2,053 teachers, and 61,592 scholars, and an income of $383,469. The number of free persons over 20 years of age unable to read and write was 36,778, of whom 34,917 were Americans and 1,861 foreigners, and 36,281 were whites and 497 free colored persons.

37. The principal collegiate and professional schools within the State in 1855 are noted in the following table:

Institutions.	Location.	Founded.	Professors.	Students.	Libraries.
University of St. Louis	St. Louis	1832	20	181	16,000
St. Charles College	St. Charles	1837	4	23	1,000
Missouri University	Columbia	1842	8	182	2,000
St. Vincent's College	Cape Girardeau	1843	10	47	6,000
Masonic College	Lexington	1844	4	32	2,000
Fayette College	Fayette	1848	3	—	1,300
Westminster College	Fulton	1851	5	—	2,000
Chapel Hill College	Chapel Hill	1852	3	—	1,200
William Jewett College	Webster	1852	3	—	1,600
Grand River College	Trenton	1855	—	—	—
Theol. (R. C.) Seminary	St. Louis	—	4	—	3,600
St. Mary's Eccles. (R. C.) Seminary	Perry Co.	—	3	—	1,700
Med. Depart. University of St. Louis	St. Louis	1836	9	141	Univ. Lib.
Med. Depart. Missouri University	St. Louis	1846	7	103	"

—and there are several other theological seminaries.

38. The most numerous of the religious denominations in this State are the Baptist, which includes about a third of the population, the Methodist with a fourth, and the Presbyterian with a fifth; and after these the Roman Catholic with a tenth, and the Christian with a twelfth of the whole. The Lutheran, Free Church, Episcopalian, Union, Moravian, Unitarian, etc., are in smaller numbers, and the Jews have a synagogue at St. Louis. The whole number of churches in 1850 was 880, with accommodation for 251,068 persons; and the value of church property was estimated at $1,561,610.

39. Jefferson City, capital of the State, is built on the south bank of the Missouri River, 142 miles above its confluence, and 160 miles by water from St. Louis. Latitude 38° 36′, and longitude 92° 8′. The site is elevated and uneven; and commands a fine view of the river and opposite cedar-crowned cliffs. The principal buildings are the Capitol, the Governor's official residence, and State Penitentiary. Its trade has hitherto been by the river, but the Pacific Railroad, now completed to this city, furnishes a more certain and nearer route to St. Louis, and is rapidly superseding the former, both for travel and traffic. Population, 1850, about 1,600, in 1856, by census, 1,924.

40. St. Louis, the commercial metropolis, is situated on the west bank of the Mississippi, 18 miles below the confluence of the Missouri, and 174 miles above the mouth of the Ohio; 1,212 miles above New Orleans, and 740 miles below the Falls of St. Anthony, and 125 miles by railroad east Jefferson City. Latitude 38° 37′ 28″, and longitude 90° 15′ 16″.

41. The site occupies two terraces, rising above the floods 20 and 60 feet respectively—the first ascent from the bottom being abrupt, and the latter more gradual, and spreading out into an extensive plain. The city extends about seven miles along the river, and three miles back, but the thickly settled portion occupies scarcely the half of this area. The streets are, for the most part, 60 feet wide, and generally at right angles with each other.

42. The city is well built, generally of brick, and to some extent of limestone, vast quarries of which underlie the site and vicinity. Among the public buildings, the most conspicuous are the Court House, constructed of Ste Genevieve limestone, at a cost of half a million dollars; the Centre Market Buildings, and the City Hall. Many of the churches, of which there are about 60, are magnificent. Of these St. George's (Episcopal), the Cathedral (Roman Catholic), and the Church of the Messiah (Unitarian) are regarded as the finest. The Cathedral is a building of polished freestone, 136 feet long and 84 feet wide, and in the tower is a chime of bells, the heaviest of which weighs 2,600 pounds. The United States Arsenal, in the extreme southeast of the city, is also a large and imposing edifice inclosed by ornamental grounds.

43. The literary and educational institutions of St. Louis are numerous and respectable. Its university, founded in 1832, under the direction of the Catholics, is a most efficient institution, and connected with it is a valuable medical department. The Medical Department of the Missouri University is also located here. The students of both these schools enjoy the advantages of clinical instruction in the City Hospital. More than 10,000 pupils attend the public schools of the city, and a large number are educated in private seminaries and the convents. The buildings of the latter are conspicuous and handsome edifices. As a general library and reading-rooms, the buildings of the Mercantile Library Association are not surpassed in the West. St. Louis has about 25 publication offices issuing newspapers and periodicals.

44. Among the benevolent institutions of the city are the City Hospital, the Marine Hospital (three miles below the city), the Sisters' Hospital, the State Asylum for the Blind, the Home for the Friendless, the Orphan Asylums, the Reform School, etc. These are all valuable institutions and well-supported, a part of them as State institutions and a part by the religious bodies and public generally. The City Hospital has long been distinguished for the excellent accommodation it affords to the sick.

45. The growth of St. Louis within the past 25 years has been wonderfully rapid, and each great interest has kept pace with the whole. It is not alone in commerce that it is a great city, but in manufactures, the arts, and all other departments of industrial economy. Improvement has gone hand in hand with its general prosperity, and the old shanty of the settler has given place to the substantial dwelling of the resident. In everything the change has been great, and a city of grand proportions, with all the elements of future success, has gained a footing where so lately a scattered village, depending on Indian trade and the trapper for support, alone existed.



CITY OF ST. LOUIS.

46. The census of 1850 gave St. Louis a population of 77,860, of which 73,842 were white, 1,362 free colored, and 2,656 slaves. These numbers constituted 13,161 families, and occupied 9,662 dwellings. The population in 1830 was only 4,377, and in 1840, 16,469, showing an increase in the decade of 230.9 per cent. From 1840 to 1850 the ratio of increase was 172.7 per cent. Since the latter period three local censuses have been taken, one in 1852, when it was 94,819, one in 1854, when 122,134, and one in 1856, when 125,201. Less than one half the population is American born, and of the foreign residents more than half are Germans and about a fourth Irish. This presents even a greater disparity between the native and immigrant population than had been supposed to have existed. The immigrants, however, constitute one of the principal sources of the wealth and prosperity of the city, and have immensely increased its productive energies.

47. As a manufacturing city, St. Louis at no distant day will become important. Already, indeed, its manufacturing establishments are both extensive and various, embracing almost every important handicraft. In 1850 there were no less than 1,308 establishments within the city limits, employing 7,321 hands and a capital of $4,377,711, and producing goods to the value of $15,400,340 annually. These sums represent a city of 77,680 inhabitants; and hence, the population being now almost double that number, we can not err in duplicating the present value of its industrial pursuits. Among the more important manufactures are its iron works, breweries, flour-mills, sugar refineries, lead and paint works, pork-packing establishments, etc. The heaviest business, however, is in ironware. The State boasts of her mountains of iron, and a coal bed is at the immediate doors of the city. Within a few years past the articles made of iron have multiplied beyond expectation; and the shops of St. Louis already compete with the best artisans elsewhere for the manufacture of steam-engines and of every species of machinery.

48. As a commercial depôt, the position of St. Louis makes it eminent. In the center of the great valley, and near the outlets of rivers traversing the States laterally for thousands of miles, it must of necessity advance in prosperity. But, not content with natural advantages, its citizens have commenced a vast system of improvements in aid of and to overcome whatever physical disadvantages there may exist. Its railroad connections with the East are already complete, and are now being pushed into the interior, westward, northwest, and southwest with a laudable energy. In these directions the iron-way has reached the capital, the Iowa border, and the Iron Mountain, from the latter of which points it will derive the most abundant supplies of iron of the best quality. These railroads already make St. Louis the immediate entrepôt of a circuit of country containing 2,000,000 inhabitants, and beyond this limit the indirect center of at least as many more souls, all requiring merchandise, manufactures, or food, interchanging the one for the other.

49. The history of St. Louis is one of great interest. On the 15th of February, 1764, La Clede and his party landed at the spot now occupied by the city, and proceeded to draw the town limits, which he named St. Louis, in honor of Louis XV. of France, a town which subsequently became the capital of Upper Louisiana, and which is now the commercial capital of Missouri. For long years after this period, the beasts of the forest afforded nourishment to the settlers, and rude huts on the ground and scaffolding in the trees shelter and protection to the daring people who first exposed the bosom of the soil to the genial influences of social industry.

50. From the time of its establishment up to the year 1763, St. Louis had grown apace, and everything connected with its position and prospects warranted the anticipation of a peaceful existence under a mild and patriarchal form of government. In the mean time, however, the fact of the cession of Louisiana to Spain became known, and disturbances at once interrupted the tranquillity of the settlers, who rebelled against the change of masters. The inhabitants clung closely to their loved government of France, and it was not until 1768 that St. Louis was occupied by Spanish troops. From this period the settlements made but little progress.

51. Upon the transfer of the country from Spain to the United States, in 1803, the

immigration of the Anglo-Americans commenced, and the population slowly but steadily augmented in numbers. On the 26th of March, 1804, the country was constituted a district of the United States, under the name of the District of Louisiana, and on the 19th of October of the same year, W. H. Harrison, then governor of Indiana, instituted the American authority. On the 4th of July, 1805, it was erected into the Territory of Louisiana, and on the 4th of July, 1812, it received the name of the Territory of Missouri. "We have now arrived at a period," says Wilson Primm, in an address on the anniversary of the founding of the city, in 1851, "when a new era was to dawn, not only on St. Louis, but on all her northern and western dependencies, when a power greater than that of the fabled lamp of Aladdin was to be brought into requisition, and by its magic to mature as it were in a day, in the western wilds of America, an existence which, on the shores of the eastern continents, the lapse of centuries had not been able to procure. In 1817 the 'General Pike,' the first steamboat that ever ascended the Mississippi, made its appearance at St. Louis." The "Independence" was the first steamboat that ascended the Missouri (May, 1819).

52. Passing over the fierce discussions which eventuated in the establishment of Missouri as one of the confederacy in 1820, we come to the year 1822, when St. Louis was erected into a city. Since that time what wonderful changes have taken place. Working its way to importance and greatness, St. Louis has still maintained its onward and upward flight. The advantages of education, the lights of science, the blessings of religion, placed within the reach of all; the establishment of a wise and vigorous municipal government, under the auspices of which its limits have been enlarged, and its interior improved and embellished; the erection of manufactures, the extension of the arts, the regulation of commerce—all these results have derived themselves from the natural resources of the city, and the intelligence and enterprise of its inhabitants. St. Louis has now a name and reputation at home and abroad of which all may be proud.

53. Bloomington is a thriving town in Buchanan County, on the road from St. Joseph to Weston, 12 miles from each, and in 1850 contained 1,295 inhabitants; Booneville, capital of Cooper County, is situated on the Missouri River, 51 miles above Jefferson City, and is an important trading town for the southwest parts of the State. It was founded by the celebrated Daniel Boone. In the vicinity the grape is extensively cultivated, and there is abundance of iron, lead, coal, marble, etc. Population (1856) 2,526; Cape Girardeau, on the Mississippi, 32 miles below St. Louis, is an old and flourishing town, with a good landing and considerable trade. It is the seat of St. Vincent's (Roman Catholic) College, founded 1843. Population (1856) 2,109.

54. Columbia, capital of Boone County, is a town of (1850) 888 inhabitants. It is pleasantly situated about 10 miles from the Missouri River and 35 miles northwest Jefferson City. The University of Missouri is located here, and has become a flourishing institution. The Medical Department of this institution is located at St. Louis; Farmington is the capital of St. Francis County, and the center of an iron and lead mining region; Fulton, the capital of Callaway County, is a thriving town 12 miles from the Missouri River and 20 miles northeast Jefferson City. It is the seat of the State Lunatic Asylum and the Asylum for the Deaf and Dumb; and has large manufactories of earthenware.

55. Hannibal is a flourishing town on the Mississippi, 132 miles above St. Louis. It is advantageously situated for commerce, and is rapidly increasing in importance, being on the line of railroad, extending east and west between Toledo, on Lake Erie, and St. Joseph, on the Missouri. Its trade is very important. Coal and limestone are abundant in the vicinity. Population, 1840, about 600, in 1850 it was 2,020, and is now (1855) about 4,000; Herculaneum is an old town on the Mississippi, 32 miles below St. Louis. It was formerly a great mart for the lead brought from the neighboring mines, but was almost entirely destroyed by a flood in 1844; Hermann, capital of Gasconade County, is situated on the right bank of the Missouri, 47 miles by river and 44 by railroad east Jefferson City. It was settled by Germans in 1837, and in 1856 contained 1,055 inhabitants. Large quantities of grapes are produced in the vicinity, and the manufacture of wine has long been carried on.

56. Independence, capital of Jackson County, is a thriving frontier town, situated five miles south of the Missouri River and 165 miles west Jefferson City. It is important as a chief depôt of the overland trade to New Mexico, California, and Oregon, and the center of trade for a wide extent of surrounding country. A railroad extends from the town to the river, and the Pacific Railroad will soon be extended through the town to the State line. Population about 3,000.

57. Jefferson Barracks, on the Mississippi, 13 miles below St. Louis, is a federal military station. The St. Louis and Iron Mountain Railroad passes near it; Keytesville, on Wolf River, a few miles above its entrance into Chariton River, and 91 miles northwest Jefferson City, is capital of Chariton County, and in 1850 had 1,427 inhabitants; La Grange is a flourishing river town on the Mississippi, 184 miles above St. Louis. It is the seat of a college, and has an active shipping business. Population (1856) 1,554; Lexington is situated on the right bank of the Missouri, 151 miles by river route west the capital. It has a large trade and has a considerable outfitting business with the caravans for Santa Fé and the Great Salt Lake country. Coal is very abundant in the vicinity. It is the seat of the Masonic College, a Methodist institution founded in 1844. Population (1850) 2,194; in 1856 about 3,309.

58. New Madrid is situated on the Mississippi, 280 miles southeast Jefferson City. It has a large shipping business. It is an old place, having been settled in 1780, but has suffered frequently from earthquakes; Neosho is a town near the southwest corner of the State, and has a good trade with the Indians of Kansas. It is on the river of the same name, and will probably be intersected by the Southwest Branch of the Pacific Railroad. About six miles from this place lead mines have been opened.

59. Palmyra is a flourishing village, capital of Marion County, and about 100 miles northeast Jefferson City. Marion City, the landing-place of Palmyra, on the Mississippi, is distant six miles. It is one of the most flourishing towns in the State, and being on the line of the Hannibal and St. Joseph Railroad, must rapidly advance. In 1850 it contained 1,284 inhabitants, in 1855 about 2,000. A railroad is also being built to Quincy, Illinois, for the purpose of connecting the railroads there terminating with the road above spoken of; Parksville is a thriving town on the left bank of the Missouri, 30 miles below Weston, and is a shipping point of importance. Population (1850) 309; Platte City, capital of Platte County, and on the river of the same name, seven miles from its confluence with the Missouri, is a noted place for business. Population (1850) 496. Both Parksville and Platte City have lately, in consequence of their neighborhood to Kansas, largely increased in population and business prosperity; Potosi, capital of Washington County, is situated in the iron and lead region, 70 miles south-southwest St. Louis. It is one of the most important towns on the line of the St. Louis and Iron Mountain Railroad.

60. St. Charles is situated on the Missouri, 24 miles from its mouth, and by railroad 20 miles from St. Louis. The site is elevated, and, from the rocky bluffs of the vicinity, the river scenery is beautiful. It is a place of great commercial importance, with abundance of coal in the neighborhood, and also quarries of limestone and sandstone. The North Missouri Railroad here crosses the river. The town contains several handsome churches, and is the seat of St. Charles College, a Methodist institution. Population (1850) 1,498, and (census 1856) 3,702.

61. Ste Genevieve, capital of the county of the same name, is situated on the Mississippi, 60 miles below St. Louis. It is the shipping port of the Iron Mountain district, to which there is a plank road 42 miles long. Besides iron, it exports copper and lead, also large quantities of white sand, which is manufactured into glass at Boston and Pittsburg. Population (1850) 718, now (1856) about 1,201.

62. St. Joseph, on the Missouri River, 318 miles above Jefferson City, is the most commercial town of western Missouri, and one of the chief depôts of the overland emigration. It is surrounded by an extremely fertile country. The town was laid out in 1843, and became the county seat of Buchanan in 1845. It contains several steam flouring and saw mills, manufactories of bagging, etc. Population (1856) 3,840. The Hannibal and St. Joseph Railroad terminates here. Weston, on the Missouri, three miles above Fort Leavenworth, is one of the most important and commercial towns in the State. It is a favorable starting-point for overland emigrants. Population (1856) 2,271.

63. Missouri, originally a portion of Louisiana, was settled by the French. A military settlement was formed as early as 1719, at the mouth of Osage River; in 1755 its oldest town, Ste Genevieve, was founded; in 1764 St. Louis, and afterward, in quick succession, a number of other towns. In 1763 the country was ceded to Spain. Spain retro-ceded it to France in 1801, and France sold it to the United States in 1803. The purchase was soon after divided into the "Territory of Orleans" (since 1812 the State of Louisiana) and the "District of Louisiana," erected in 1805 into a territorial government. In 1812, on the admission of Louisiana into the Union, the name was changed to "Missouri Territory," which included also the present State of Arkansas. In 1817 application was made to Congress to frame a State constitution, and such was "done in convention" at St. Louis, 12th of June, 1820. The admission of the State into the Union was not effected before a fierce and stormy debate in the national legislature and a compromise on the subject of slavery, by which it was agreed that no more States with the institution of slavery should be admitted north of 36° 30′ north latitude. Such is the celebrated Missouri compromise line.

STATE OF IOWA.



1. Iowa lies between latitudes 40° 40′ and 43° 30′ north, and longitudes 90° 12′ and 96° 53′ west; and is bounded on the north by Minnesota, on the east by Wisconsin and Illinois (which are separated from Iowa by the Mississippi River), on the south by Missouri, and on the west by Nebraska and Dacotah territories, the first separated from it by the Missouri, and the latter by the Sioux River.

2. The greatest breadth of the State is east and west, and measures about 300 miles, and the general width thereof 196 miles. The area is computed at 50,914 square miles, or 1.73 per cent. of the total of the Union.

3. Iowa is a country of unrivaled beauty. Its surface is moderately undulating, but nowhere traversed by mountains, nor even high hills; yet on the margins of the rivers there are frequent "bluffs," or calcareous strata intersected by ravines. These bluffs are generally from 40 to 130 feet high, and from these the table-land sweeps off in gentle undulations. The southern portion of the State is the most picturesque, abounding with grassy lawns and verdant plains, interspersed with groves and meandering rivulets, and intersected by the Iowa, Skunk, and Des Moines rivers, which flow in a direction southeast to the Mississippi, and by numerous affluents of the Missouri, which washes the western border. The northern part partakes more of the bold and striking in its scenery; the country is more elevated, and hills and mounds are not uncommon, their tops covered with towering oaks, while the rivers tumble over precipitous ledges of craggy rocks to the lower plains. The northeastern section is a rich mineral country, abounding in lead ore and various other metals, but it nevertheless contains much excellent land. This portion of the State is of similar geological formation with that of northwestern Illinois and southwestern Wisconsin.

4. The unique and admirably diversified prairies of Iowa are, however, the most distinguishing feature of the State. Their characteristic peculiarity is the absence of timber. These natural meadows are covered with a rich coat of coarse grass, forming excellent pasturage, and are not unfrequently interspersed with hazel thickets and sassafras shrubs, and in the season of flowers are decorated with a brilliant garniture of honeysuckles, jessamines, wild roses, and violets. Three fourths of the country is of this description, yet so happily and conveniently are the streams and timbers arranged, that nature appears to have made an

effort to distribute them in the most desirable commingling. Iowa is a portion of the vast plain that stretches from the Missouri River to the Arctic Sea, and has a general elevation of 1,200 feet above the level of the ocean.

5. The Mississippi, forming the eastern boundary, washes the entire length from north to south; and the Missouri has its course along the western border. These two great rivers are the recipients of all the interior waters of the country. The Des Moines, the Iowa, the Checauque or Skunk, the Wapsipinicon, the Makoqueta, and Turkey rivers are the principal affluents of the Mississippi.

6. The Des Moines rises in the Coteau des Prairies, in Minnesota, and in its upper course is a rapid current. It runs in a generally southeast direction through a rocky bed, is navigable for steamboats (in a good stage of water) for 200 miles from its mouth, and discharges itself at the foot of the Des Moines rapids, in its lower course forming the dividing line between the States of Iowa and Missouri, and reaching the Mississippi twenty miles below the general boundary of the State.

7. The Iowa is the largest tributary of the Mississippi above the Illinois. It rises in the table-lands, from which descend also some of the tributaries of the Minnesota, and has a course of about 200 miles in a southeasterly direction, affording steamboat navigation to Iowa City. The Iowa receives several considerable tributaries, of which Cedar River is the largest, and is a navigable stream. The country drained by this river is a luxuriant and fertile tract. The bottoms skirting it are usually prairie, and somewhat inclined to be sandy, but are warm and productive.

8. The Skunk rises in the high land between the Des Moines and the Iowa, and has a course of about 150 miles. The country through which it passes, from its source to its mouth, is highly fertile, and is in parts heavily timbered. The Wapsipinicon discharges its waters into the Mississippi 12 miles above Rock Island, after a southeasterly course of 200 miles. Its channel is crooked and current rapid, which materially interferes with navigation. The Makoqueta, running along the south edge of the mineral region, discharges itself about six miles below Bellevue. Its course is through a richly timbered country, bounded with high limestone bluffs, and affords excellent water-power. Turkey River has its rise in the northern table-lands, and after a meandering course discharges its waters opposite Cassville. This river drains a region of vast agricultural and mineral resources.

9. The rivers flowing southwest to the Missouri are short and of small volume, and, in comparison with those flowing to the Mississippi, are of little importance except as mill-streams. The largest are scarcely more than creeks. The Big Sioux makes a portion of the western boundary.

10. The greater portion of Iowa is underlaid by limestone, which in the south is carboniferous, and in the northeast magnesian and lead-bearing. The northern section belongs to the great drift deposit which distinguishes Minnesota; and the prairies are in many places thickly covered with boulders, many of them being of immense dimensions.

11. The lead mines of the northeast, and of which Dubuque is the center, are continuous of those of Wisconsin and Illinois. Zinc occurs in fissures along with the lead, and is chiefly found in the form of electric calamine and in cellular masses. In some places this mineral is found in a state of carbonate, and in others as a sulphuret. Copper is also found in this region, and it has also been discovered on Cedar River. Iron is abundantly distributed.



WESTERN SCENE.

12. The Iowa River meanders near the eastern boundary of the carboniferous deposits, which extend southwest into Missouri. It is upward of 200 miles in the direction of the valley of the Des Moines, across the great coal field: westwardly, it extends nearly to the Missouri River. The entire area of this field in Iowa alone can not be less than 20,000 square miles—in all, embracing a country equal to two fifths of the whole State. The beds are of immense thickness—in some parts 100 feet or more, and lying near the surface are capable of being worked easily and at small expense.

13. Besides these predominating minerals, the State has many others, and not less valuable in an economic point of view, and building material of the best descriptions sufficient for all present or prospective requirements. Gold is said to have been discovered in the neighborhood of Des Moines City.

14. The winters in Iowa are frequently prolonged into the month of April, and the rivers are frozen over from December to the latter part of March. The climate, however, is by no means unpropitious to agriculture, and, as a general occurrence, the peach blossoms in April, and wheat ripens early in August. The soils of Iowa are generally excellent, and no State of the Union has a less amount of inferior land. The valleys of the Cedar, Iowa, and Des Moines, as high as lat. 42° 30′, present a body of arable land which, taken as a whole for richness in organic elements, for amount of saline matter and due admixture of earthly silicates, affords a combination that belongs only to the most fertile upland plains. North of this, the best agricultural region of the State, the lands are of an inferior character, but still not unprofitable, and the lower grounds are either wet or marshy, or filled with numerous ponds, and entirely destitute of timber.

15. The greatest scarcity of trees is north of the forty-second parallel. Farther south, and along the rivers, the country is amply wooded. Ash, elm, sugar and white maple grow in the alluvials for a mile or more in width, on the river banks; and in other localities are found poplars, oaks, black and white walnut, basswood, etc., and in the northern parts of the State there is some pine timber. Oak is the predominating forest growth, and here attains a magnificent development.

16. In 1850 Iowa contained 192,214 inhabitants, collected into 33,517 families, and occupying 32,962 dwellings. This population was equal to 3.78 to the square mile, and to 0.83 per cent. the total of the United States. The population of the counties was as follows:

Counties.	Population.	County Seats.
Allamakee	777	Waukau.
Appanoose	3,131	Centreville.
Benton	672	Vinton.
Black Hawk	135	Bla. Hawk C. H.
Boone	735	Booneville.
Buchanan	517	Independence.
Cedar	3,941	Tipton.
Clark	79	Clark C. H.
Clayton	3,872	Garnavillo.
Clinton	2,822	De Witt.
Dallas	854	Adell.
Davis	7,264	Bloomfield.
Decatur	965	Nine Eagles.
Delaware	1,759	Delhi.
Des Moines	12,988	Burlington.
Dubuque	10,841	Dubuque.
Fayette	825	West Union.
Fremont	1,244	Sidney.
Henry	8,707	Mount Pleasant.
Iowa	822	Marengo.
Jackson	7,210	Bellevue.
Jasper	1,280	Newton.
Jefferson	9,904	Fairfield.
Johnson	4,472	Iowa City.
Jones	3,007	Anamosa.
Keokuk	4,822	Lancaster.
Lee	18,861	Fort Madison.
Linn	5,444	Marion.
Louisa	4,939	Wapello.
Lucas	471	Chariton.
Madison	1,179	Winterset.
Mahaska	5,989	Oskaloosa.
Marion	5,482	Knoxville.
Marshall	338	Marshall C. H.
Monroe	2,884	Albia.
Muscatine	5,731	Muscatine.
Page	551	Page C. H.
Polk	4,513	Fort Des Moines
Pottawatomie	7,828	Council Bluff C.
Poweshiek	615	Montezuma.
Scott	5,986	Davenport.
Tama	8	Tama C. H.
Taylor	204	Taylor C. H.
Van Buren	12,270	Keosauqua.
Wapello	8,471	Ottumwa.
Warren	961	Indianola.
Washington	4,957	Washington.
Wayne	340	Wayne C. H.
Winneshiek.	546	Dekorrah.

—since 1850 a large number of new counties have been organized and a vast increase of the population made—in 1852 it amounted to 230,106, and in 1856 to 509,414.* In 1840 the population was only 43,112.

17. Of the total (1850) population, 191,881 (99.83 per cent.) were white persons—100,887 males and 90,994 females, and 333 were colored persons—165 males and 168 females; and 170,620 (88.4 per cent.) were Americans (of whom 50,380 were born in the State), 21,232 were foreigners (11.05 per cent.), and 362 were of origin not ascertained. In other States there were 6,358 natives of Iowa.

18. Of 49,315 males over 15 years of age employed in industrial pursuits† in 1850 the following returns were made—in commerce, trade, manufactures, mining, and the mechanic arts 9,255, in agriculture 32,779, in labor not agricultural 5,392, in the army 71, in navigation 163, in law, medicine, and divinity 1,077, in other pursuits requiring education 425, in government civil service 103, in domestic service 10, and in other occupations 40.

19. Agriculture is the prominent industrial pursuit. Manufactures are only established in the more thickly settled districts, and are as yet of small variety or extent, although rapidly increasing in importance. Mining is carried on profitably in the northeast, and the commerce and internal trade of the State are in a very flourishing condition. Time alone is required to develop the several industries, and advance the State to a high position in the confederacy.

20. Though rich in minerals, little has been done toward their development, save the working of the galena mines in the neighborhood of Dubuque. These, in connection with the Illinois and Wisconsin mines of the same description, have for many years been the source of a great portion of the lead used in the United States, and are almost inexhaustible. The coal of Iowa has as yet been scarcely disturbed, and the same may be said of all the other economic minerals within the State, which, however, constitute a vast and profitable resource for the future, and a basis on which manufactures and commerce may safely rely for material.

21. In 1850‡ Iowa contained 14,805 farms, which in the aggregate covered 2,736,064 (improved 824,682 and unimproved 1,911,382) acres of land, and were valued at $16,657,567; and the value of implements and machinery thereon was $1,172,869. Thus the average size of farms was 185 acres, and their average value $1,125, or with their implements, etc., $1,204.

22. The quantity of livestock upon farms in 1840 and 1850, according to the censuses of those years, was as follows:

	horses, mules, etc.	neat cattle	sheep	swine
1840	10,794	38,049	15,854	104,899
1850	39,290	136,621	149,960	323,247

—among the horses, etc., in 1850, there were 754 asses and mules, and among the neat cattle 45,704 milch cows and 21,892 working oxen, and the value of the whole in that year was $3,689,275. The value of animals slaughtered for food, etc., in the last-named year was $821,164; and the following animal products were obtained—butter 2,171,188, cheese 209,840, and wool 373,898 pounds. The production of wool in 1840 amounted to only 23,039 pounds.

23. The food crops (bushels) of 1840 and 1850 were to the following amounts:

	wheat	rye	Indian corn	oats	barley	buckwheat
1840	154,693	3,792	1,406,241	216,385	728	6,212
1850	1,530,581	19,916	8,656,799	1,524,345	25,093	52,516

—making a total in 1840 of 1,788,051, and in 1850 of 11,809,250 bushels. The potato crop of 1840 amounted to 234,063, and in 1850 to 282,363 (sweet 6,243) bushels; and that of peas and beans in 1850 to 4,775 bushels.

24. The miscellaneous crops of 1850 consisted of—hay 89,055 tons, hops 8,242 pounds, clover-seed 342, and other grass-seed 2,090 bushels, beeswax and honey 321,711 pounds, flax-

* In 1856 total population 509,414—274,012 males and 235,402 females. Native voters 86,185, naturalized voters 14,492. Colored persons 271. Married 170,979, widowed 11,673. Landowners 67,111. Dwellings 83,906, families 89,224. Of the total population, 18,389 were born in New England, 84,603 in the Middle States, 24,136 in the Southern States, 198,742 in other Western States, and 93,302 in Iowa. Germany contributed to the foreign population 28,644, Ireland 20,896, England 8,941, Canada 5,777, Norway 2,782, Scotland 2,170, France 1,807, Belgium 1,511, Austria 1,254, Sweden 1,116, Switzerland 1,103, and Prussia 960.

† In 1856 the occupations were returned as follows: 68,634 farmers, 16,574 laborers, 23,029 mechanics, 1,163 traders, 173 manufacturers, 2,910 merchants, 1,500 clerks and book-keepers, 4,527 professional men, and 1,988 miscellaneous.

‡ The agricultural statistics for 1855 give the following results: land in farms 8,559,437 acres, of which 2,043,958 acres were improved and 6,515,479 acres were unimproved; and the crops—spring wheat (846,966 acres) 4,972,639 bushels, winter wheat (41,114 acres) 496,877 bushels, oats (190,922 acres) 6,127,329 bushels, Indian corn (737,213 acres) 31,163,362 bushels, and potatoes (18,124 acres) 2,014,388 bushels. Hogs sold 403,584, valued at $3,127,531. Cattle sold 125,779, valued at $2,923,253. Butter made 6,075,739 pounds, cheese 729,852 pounds, wool produced 515,800 pounds.

MICHIGAN AND WISCONSIN.

EXPLANATION.
State Capitals ... ✻ LANSING
County Towns ... ○ Mason
Rail Roads ...
Battle Fields ... ⚔ 1832

SCALE OF STATUTE MILES
0 10 20 40 60 80
50 Geographical or 57.63 Statute Miles, to one inch.

94 93 92 91 90 89 LONGITUDE WEST 88 FROM GREENWICH 87 86 85 84 83 82

49 48 47 46 45 43 42 41

16 15 14 13 12 LONGITUDE WEST 11 FROM WASHINGTON. 10 9 8 7 6

CANADA WEST

LAKE SUPERIOR

MICHIGAN

LAKE HURON

LAKE MICHIGAN

LAKE ERIE

CANADA

MINNESOTA

WISCONSIN

IOWA

ILLINOIS

INDIANA

OHIO

Rainy Lake
Rainy L.R.
Namekan L.
Little Fork
Hunters Island
Saganaga L.
Arrow L.
Bois Blanc L.
Mountain L.
Pigeon R.
Vermillion L.
Seven Beaver L.
Swan L.
Swan R.
Cloquet R.
St Louis River
Buchanan
Sandy L.
Mississippi River
Fond du Lac
Lt Detour
Apostle Islands
Bayfield
La Pointe
Superior
Douglass
Chaqwamegon B.
Masked R.
Mille Lac
Upper St Croix L.
Pine
Namebu L.
Namekagon R.
St Croix River
Burnett
Snake R.
Benton
Sherburne
Cambridge
Isanti
Humboldt
Polk
Monticello
Ramsey
Anoka
St Anthony City
St Paul
Minneapolis
Minnetonka
Carver
Hudson
Prescott
Pierce
Hastings
Dakota
Goodhue
Wabasha
Red Wing
Lake Pepin
Fairbault
Mankato
Owatonna
Steele
Dodge
Oakland
Olmsted
Rochester
Winona
Waseca
Le Sueur
Rice
Faribault
Freeborn
Mower
Albert Lea
Austin
Preston
Fillmore
Caledonia
Houston
Root R.
Upper Iowa R.
Red Cedar R.
Wapsipinicon R.
Independence
Manchester
Delhi
Dunlieth
Bellevue
Galena
Du Buque
Cedar Falls
Dunn
Chippewa Falls
Eau Claire
Barron
Taylor
Clark
Jackson
Wood
Portage
Waupaca
Outagamie
Brown
Kewaunee
Manitowoc
Shawano
Oconto
Marathon
Lincoln
Chippewa
Polk
Burnett
Douglas
Bayfield
Ashland
Iron
Vilas
Oneida
Forest
Florence
Menominee
Marinette
Green Bay
Fort William
Neepigon B.
Nipigon
Nipigon R.
Jarvis I.
Simpsons I.
Slate Is.
Point Porphyry
Passage I.
Isle Royale
Siskawit Bay
Washington Harbor
Eagle Harbor
Eagle River
Keweenaw Point
Lake Fanny Hooe
Manitou I.
Michipicoten I.
Michipicoten R.
Leach I.
Caribou I.
Montreal I.
Stannards Rock
Huron Mts.
L'Anse
Machigonne L.
Marquette
Agogebic L.
Trout L.
Pictured Rocks
Grand I.
Pau Sable
White Fish Point
Gros Cap
Saut St Mary
Sugar I.
Point Iroquois
Lake George
Lake Nicolet
Lake Munuscong
Lake Huron
Manistique
Manistique L.
Esperance R.
Ford R.
Little Bay des Noquets
Menominee R.
Escanaba R.
Whitefish Bay
Whitefish Point
Garden I.
Pt St Ignace
Mackinaw
Mackinaw City
Lake Michigan
Lake Huron
Lake Superior
Lake Erie
Lake St Clair
St Clair R.
St Clair Flats
Detroit R.
Lake St Clair
Great Manitoulin I.
Drummond I.
Mississagua Pt
Thessalon R.
Thessalon I.
St Joseph I.
Hay Lake
Whitefish Bay
Whitefish R.
Whitefish I.
Point Detour
Lake Huron
Beaver I.
Fox Is.
Fox R.
Pottawattamie I.
Burnt Is.
Little Traverse Bay
Cheboygan
Cheboygan R.
Duncan
Bois Blanc I.
The Ducks
Presque Isle
Presque Isle R.
North Cape
Thunder Bay
Great Manitou I.
Gibraltar
Sleeping Bear Pt
Grand Traverse
Grand Traverse Bay
Manitou I.
Alcona
Oscoda
Alcona
Au Sable R.
Kewaunee
Manistee R.
Higgins L.
Houghton L.
Shawtaneog Pt
Au Gres R.
Au Gres Bay
Au Gres
Au Sable
Grand Pt au Sable
Pere Marquette Bay
Pere Marquette
Little Pt au Sable
Saginaw Bay
Saginaw
Bay City
Midland
Port Sanilac
Lexington
Port Huron
Sarnia
St Clair
Mt Clemens
Detroit
Monroe
Pt Pelee
Pelee I.
Lake Erie
Toledo
Sandusky
Port Clinton
Fremont
Tiffin
Findlay
Kalida
Upper Sandusky
Kenton
Marion
Delaware
Bellefontaine
Sidney
Celina
Lima
Van Wert
Bluffton
Fort Wayne
Rochester
Warsaw
Plymouth
Albion
Defiance
Paulding
Maumee R.
Maumee Bay
Toledo
Monroe
Adrian
Tecumseh
Brownstown
Ypsilanti
Ann Arbor
Jackson
Marshall
Battle Creek
Kalamazoo
Paw Paw
Allegan
Holland
South Haven
St Joseph
Benton Harbor
Berrien
Cass
Schoolcraft
Centreville
Coldwater
Jonesville
Hillsdale
Bronson
Quincy
Branch
Lenawee
Michigan City
New Buffalo
La Porte
Lake Sta.
Valparaiso
South Bend
Elkhart
Angola
Goshen
Bryan
Kankakee R.
Kankakee City
Iroquois R.
Rensselaer
Winamac
Tippecanoe R.
Eel R.
Wabash
Monticello
Logansport
Peru
Delphi
Wabash R.
Miss-is-sinewa R.
St Mary R.
Huntington
Kokomo
Marion
Frankfort
La Fayette
Lafayette
Middleport
Pontiac
Iroquois R.
Kankakee R.
Illinois R.
Peoria
Peoria Lake
Metamora
Bloomington
Tremont
Macomb
Bath
Knoxville
Galesbg
Toulon
Hennepin
La Salle
Ottawa
Morris
Joliet
Chicago
Elgin
Whitewater
Janesville
Beloit
Rockford
Freeport
Belvidere
Whitehall
Kenosha
Racine
Milwaukee
Waukesha
Jefferson
Madison
Watertown
Sauk City
Columbus
Portage City
Waupun
Horicon
Fond du Lac
Sheboygan
West Bend
Ozaukee
Sacramento R.
Oshkosh
Neenah
Menasha
Appleton
Shilton
Manitowoc
Muckwa
Grand Rapids
Plover
Stevens Pt
Wausau
Wisconsin R.
Jones Mill
Menomonee City
Shawanaw L.
Shawanaw
Chippewa R.
Black R.
Yellow R.
Flambeau R.
Pine R.
Pine River
Oconto R.
Pishtego R.
Wolf R.
Mandowish R.
Ojibwa R.
Namebu L.
Namekagon R.
Chaqwamegon B.
Masked R.
Lake View Desert
Ft Brule
Brule R.
Menominee R.
Escanaba R.
Little Bay des Noquets
Manistique L.
Manistique
Esperance R.
Ford R.
Machigonne L.
Agogebic L.
Trout L.
Lake Superior
Lake Michigan
Lake Huron
Lake Erie
Lake St Clair
Detroit R.
St Clair R.
St Clair Flats
Lake George
Lake Nicolet
Lake Munuscong
Whitefish Bay
Whitefish R.
Whitefish I.
Whitefish Point
Point Iroquois
Hay Lake
Thessalon R.
Thessalon I.
St Joseph I.
Mississagua Pt
Great Manitoulin I.
Drummond I.
Lake Huron
Lake Michigan
Lake Erie
Lake St Clair
Detroit R.
St Clair R.
St Clair Flats
Lake George
Lake Nicolet
Lake Munuscong
Whitefish Bay
Whitefish R.
Whitefish I.
Whitefish Point
Point Iroquois
Hay Lake
Thessalon R.
Thessalon I.
St Joseph I.
Mississagua Pt
Great Manitoulin I.
Drummond I.

VICINITY OF DETROIT.
STATUTE MILES.
0 2 4 6 8
Greenfield
Hamtramck
Grosse Point
City of Detroit
Windmill Pt
Half Way
Windsor
Sandwich
Fighting I
Grand Trunk R.R.
Great Western R.R.
Michigan Central R.R.
Wells
Fayette
Detroit & Toledo R.R.
Detroit & Milwaukee R.R.
Campbell
Rouge R.
Ecorse R.
Ecorse
Canada
Gibraltar
Gibraltar Bay
Gibraltar Pt
Grosse Isle
Grosse Isle Pt
Gibraltar Is.
Turkey R.
Canard R.
Detroit R.
Gibraltar R.
Lake Erie
Lake St Clair
Detroit R.
St Clair R.
St Clair Flats
Lake George
Lake Nicolet
Lake Munuscong
Whitefish Bay
Whitefish R.
Whitefish I.
Whitefish Point
Point Iroquois
Hay Lake
Thessalon R.
Thessalon I.
St Joseph I.
Mississagua Pt
Great Manitoulin I.
Drummond I.
Lake Huron
Lake Michigan
Lake Erie
Lake St Clair
Detroit R.
St Clair R.
St Clair Flats
Lake George
Lake Nicolet
Lake Munuscong
Whitefish Bay
Whitefish R.
Whitefish I.
Whitefish Point
Point Iroquois
Hay Lake
Thessalon R.
Thessalon I.
St Joseph I.
Mississagua Pt
Great Manitoulin I.
Drummond I.

VICINITY OF MILWAUKEE.
Washington
Ozaukee Co.
Germantown
Mequon
Granville
Menomonee
Granville
Wauwatosa
Schwarzburg
Watertown Junction
Swamp Siding
Wauwaposa
Milwaukee
Elm Grove
New Berlin
Greenfield
Lake
Brookfield
Muskego
Franklin
Oak Creek
Lake Michigan
Milwaukee R.
Menomonee R.
Root R.
Muskego L.
Pewaukee L.
Pewaukee R.
Fox R.
Milwaukee & Miss. R.R.
Milwaukee & Watertown R.R.
Milwaukee & Western R.R.
Milwaukee & Rock River Canal
Lake Michigan

Entered according to Act of Congress, in the Year 1858 by J.H. Colton & Co. in the Clerks Office of the District Court of the United States for the Southern District of New York.

seed 1,959 bushels, flax 32,660 pounds, maple-sugar 78,407 pounds, molasses 3,162 gallons, tobacco 6,041, silk cocoons 246 pounds, and wine 420 gallons. The value of market-garden products was $8,848, and of orchard products $8,434.

25. The total value of agricultural products in 1840 was $688,308, and in 1850, $8,800,997.

26. In 1850 Iowa contained 522 establishments engaged in manufactures, mining, and the mechanic arts, and in these branches a capital of $1,292,875 was invested. The cost of raw material consumed in the census year was $2,356,881, the number of hands employed was 1,707—1,687 males and 20 females, with aggregate wages amounting in the year to $473,016, and the value of products was $3,551,783. The value of manufactured products in 1840 was only $457,734. In 1855 the value of general manufactures was $4,096,961.

27. The value of home-made manufactures (not included in the above) was in 1840 $25,966, and in 1850, $221,292. In 1855 the value was $438,900.

28. Iowa has no direct trade with foreign countries, but its trade with the Atlantic and Gulf ports is comparatively extensive, its exports consisting principally of the products of agriculture and the mines, and its imports of the manufactures of Europe and the Eastern States, groceries, wine, etc. The shipping ports are Keokuk, Fort Madison, Burlington, Muscatine City, Davenport, Lyons, Bellevue, Dubuque, etc., at all which places a busy trade is also carried on with the interior.

29. Keokuk, Fort Madison, Burlington, Davenport, Clinton, Lyons, Sabula, and Dubuque will shortly be connected with the interior by railroads. Most of these will form grand trunk railroads and be carried westward to the Missouri, and thence, in the progress of events, to the Pacific Ocean. None are as yet completed; but, perhaps, as a means of developing the wealth of the interior, these lines are of inferior importance to the grand project of opening the channel of the Des Moines to steam navigation; it will thus become the thoroughfare through which the greater part of the commerce of the country will pass, and along its banks will rise up cities and towns, equal in magnitude and wealth to those on the Illinois or the Hudson—in fact, it will become as important to Iowa as those rivers are to the States through which they have their courses. Through Iowa will also pass a link of the great chain of north and south railroads, connecting St. Louis with the extreme settlements of Minnesota, etc.

30. The constitution upon which the present government is based was adopted in convention on the 5th March, 1857. It grants the right of voting to every white male citizen of the United States, 21 years of age, who has resided in the State six months and in the county 60 days. All elections by the people are by ballot. The general election is held on the 2d Tuesday in October.

31. The legislature consists of a senate of 30 members, elected for four years, one half every second year, and a house of representatives of 59 members, elected biennially. Senators must be 25 and representatives 21 years of age, and otherwise must have the qualifications of voters. In all elections by the legislature votes are given *viva voce*. The legislature meets on the 2d Monday of January biennially.

32. The governor and lieutenant-governor, chosen by a plurality of votes, hold office for two years, and the governor until his successor is elected and qualified. They must be 30 years of age, citizens, and resident for two years preceding election. The lieutenant-governor is president of the senate. A secretary of state, treasurer, and auditor are elected by the people for two years, and until their successors are qualified.

33. The judicial power is vested in a supreme court, 14 district courts, and other inferior courts. The supreme court, with appellate jurisdiction in chancery cases only, consists of three judges, elected by the people for four years, one every second year, and the one having the shortest time to serve is chief-justice. A judge of the district is elected in each district for four years, and also a district attorney for the same period.

34. The revenue is derived chiefly from taxation. The total resources of the treasury for the term of two years, ending 31st October, 1852 and 1856, were respectively $139,681 and $274,377. The disbursements for the same terms were $131,631 and $256,573. On the 1st November, 1856, the funded debt of the State amounted to $71,442, and other debts to $57,568, making a total indebtedness of $129,010.



CITY OF DUBUQUE.

35. Nothing so well illustrates the progress of a State as the increasing ability it presents to bear increased taxation. The following exhibits the valuation of taxable property and the amount of tax thereon for the past ten years:

1847	taxable property	$11,680,125	tax $23,944	1852	taxable property	$38,427,376	tax $57,607
1848	"	14,449,200	" 36,129	1853	"	49,540,804	" 74,310
1849	"	18,509,767	" 47,295	1854	"	72,327,204	" 89,927
1850	"	22,623,234	" 56,558	1855	"	106,895,390	" 133,619
1851	"	28,464,550	" 56,929	1856	"	164,394,413	" 196,243

—from which it appears that within the decade ending with 1856 the prosperity of the State has increased 800 per cent.

36. The principal institutions which are wholly or in part supported by the State are the Asylum for the Blind and the Asylum for the Deaf and Dumb at Iowa City, the Asylum for the Insane at Mt. Pleasant, and the State Penitentiary at Fort Madison.

37. The number of persons returned as attending school in 1850 was 35,473, or one in every 5.38 of the total population. The number of scholars and the general statistics of the schools in that year were as follows:

Classification.	Number.	Teachers.	Scholars.	Income
Primary and public schools	740	828	29,556	$51,492
Academies and private schools	33	46	1,111	7,980
Universities and colleges	2	4	100	2,000

—making a total of 775 schools, 878 teachers, and 30,767 scholars, and an annual income amounting to $61,472. The number of persons over 20 years of age unable to read and write was 8,153, of whom 7,076 were Americans and 1,077 foreigners, and 8,120 were white and 33 colored persons.

38. The number of common schools in the State in 1855 was 1,520, with 1,753 teachers (961 males and 772 females), and an average of 44,115 scholars. The number of children between 5 and 21 years of age was 111,093. The school fund amounted to nearly $1,000,000

39. The principal collegiate institutions in the State in 1855 were as follows:

Institutions.	Location.	Founded.	Institutions.	Location.	Founded.
Des Moines College	Des Moines City	1852	Iowa State University	Iowa City	1850
Baptist University	Burlington	1853	Wesleyan University	Mt. Pleasant	1854
Alexander College	Dubuque	1853	Med. Depart. Iowa State Univ.	Keokuk	1850

—these are all young institutions, and few have as yet collected any respectable library.

40. The most numerous of the religious denominations in Iowa, according to the census of 1850, were the Methodist, which included about two fifths of the population, and the Presbyterian, which claimed one fifth. The Congregational, Roman Catholic, and Baptist are next in numbers, and after these the Christian, Friends, Lutheran, Episcopal, Union, Moravian, German Reformed, and Universalist. The whole number of churches in the State was 193, with accommodation for 43,083 persons, and the value of church property was estimated at $177,425. The character of the immigration since 1850 may have changed the proportionate importance of the churches, and most certainly will have vastly increased the enumerations and value of property.

41. Des Moines City, the new seat of government, occupies the site of old Fort Des Moines, on the river of the same name, where it is joined by Raccoon River, 120 miles west-by-south Iowa City. By means of slackwater improvements the river is rendered navigable to the Mississippi, and numerous railroads are being constructed from the Mississippi at Davenport, Dubuque, Keokuk, etc., which, converging at this point, will be continued in a single line to Council Bluffs, on the Missouri. Coal and lumber abound in the vicinity; and the water-power furnished by the river is employed by flouring and saw mills. Population (1850) 502, and (1855) about 2,000.

42. Iowa City, the former capital, is beautifully situated on the left bank of the Iowa River, about 80 miles from its mouth, and by the Mississippi and Missouri Railroad 55 miles from Davenport. Latitude 41° 39′, and longitude 91° 30′. The site was selected for the seat of government in 1839, and at that date was an entire wilderness. The surface consists of a succession of plateaux rising from the river, and on the edges of these are the principal avenues, which are intersected centrally by Iowa Avenue, on which the old State House is built. This edifice is built of bird's-eye marble (abundant in the vicinity), and is 100 feet long by 60 feet wide, surmounted by a dome resting on 22 Corinthian columns. The other principal buildings are the State University and the asylums for the blind and the deaf and dumb. Above the city the river affords valuable water-power, and to this point is navigable for small steamboats. A large number of railroads will center here, extending to all the chief towns on the Mississippi, and westward to Council Bluffs. These facilities, when completed, will vastly augment its commercial importance, already great, but destined to be highly distinguished. Population (1850) 2,262, and (1855) about 4,500.

43. Burlington is one of the principal river ports, 45 miles above Keokuk. On the opposite side of the river is East Burlington, the terminus of the Chicago, Burlington and Quincy Railroad line, which is continued west by the Burlington and Missouri Railroad, now in progress to the Missouri River. Burlington was the State capital until 1839, and for many years was the largest town in the State. Population (1850) 4,082, and (1855) about 10,000.

44. Council Bluffs City is situated near the Missouri River, 665 miles from its mouth, and opposite Council Bluffs, in Nebraska. It is the largest town in the western part of the State, and is a place of active business. Population (1855) about 3,000. The Mississippi and Missouri Railroad will terminate here, 240 miles west Iowa City and 295 miles west Davenport.

45. Davenport is situated at the foot of the upper rapids of the Mississippi, and opposite Rock Island City, with which it communicates by a railroad bridge. It is 320 miles by river above St. Louis and 55 miles by railroad east Iowa City. The bridge connects the Chicago

and Rock Island and the Mississippi and Missouri railroads, and thus forms an uninterrupted route between the Missouri at Council Bluffs and Lake Michigan at Chicago. These roads have been the means of its great progress of late years, and of its having risen from a town of 1,848 inhabitants in 1850 to one of 8,000 in 1855. The interruption of navigation at this point has also favored its growth. Coal is abundant in the vicinity.

46. Dubuque, 112 miles by river above Davenport, is the central depôt of the Iowa lead region, and a place of active trade. It is the oldest as well as the largest town in the State, having been settled in 1786, and having a present (1855) population of 12,000. The situation is one of the most beautiful that can be conceived, and alike eligible for commerce. About 600 steamboats leave its wharves annually, and its commerce by way of Chicago is also very large. Dunleith, on the opposite shore, is the terminus of the Central and the Galena and Chicago Union railroads, which will eventually be carried over the river by a bridge, and connect directly with the railroads which are now being built westward toward the Missouri and other points. In the vicinity there is, besides the lead for which it is famed, a great abundance of coal and limestone.

47. Fort Madison, 22 miles above Keokuk and 12 miles above the lower rapids of the Mississippi, is situated on ground rising gradually from the river, and is the shipping port for large quantities of pork, grain, lumber, etc. It is a beautiful and substantially built town, and is rapidly rising in importance. The State Penitentiary is located here. Population (1850) 1,509, and (1855) about 4,000.

48. Keokuk is situated at the foot of the lower rapids, and above the mouth of the Des Moines, of the valley of which it is the natural port. Here also navigation ceases for the larger class of steamers, and hence a large business is done in the transhipment of merchandise. The trade of Keokuk is annually increasing and has become very important; while the city is extending its limits with unprecedented rapidity. In 1850 it contained only 2,478 inhabitants, and the assessment for taxation amounted only to $711,800; in 1855 it contained 8,000 to 10,000 inhabitants and a property assessed at $2,269,000, from which a municipal tax of $27,000 was raised. Several railroads will center at this point, coming in from Des Moines, Iowa City, Kansas City, etc., and when completed will immeasurably augment the importance of its commerce, already amounting to between $7,000,000 and $8,000,000 annually. A railroad is also in progress from Peoria and the East.

49. Mount Pleasant is a flourishing village on the Burlington and Missouri Railroad, 29 miles west Burlington. Here are located the Wesleyan University, the State Normal School, and the Asylum for the Insane. Population (1855) about 1,200.

50. Muscatine (formerly Bloomington) is situated on the Mississippi, 26 miles below Davenport, and is one of the river termini of the Mississippi and Missouri Railroad, 37 miles east Iowa City. The place was first settled in 1836, previous to which year it had been an Indian trading-post. It is now one of the most flourishing commercial towns in the State, and the natural port of the Red Cedar and Iowa rivers. It has a good landing. Population (1850) 2,540, and (1855) about 6,000.

51. Sioux City is a new town at the mouth of Sioux River, and the projected terminus of the Dubuque and Pacific Railroad. Its site is known as the Sergeant's Bluff, and is the center of a rich coal-field.

52. Iowa was originally a part of French Louisiana. The first white settlements were made in 1686, at Dubuque, by Frenchmen, who built a fort at that point and commenced a trade with the Indians, which was the sole dependence of the place for more than a century and a half. It is here that the great lead mines of the State were first discovered, but at a later period. The State was a part of the Missouri Territory from 1804 to 1821, but after that was placed successively under the jurisdiction of Michigan and Wisconsin territories. In June, 1838, it was erected into the separate territorial government of Iowa; under which was included all that portion of the present State of Minnesota west of the Mississippi River, and also the Dacotah Territory. On the 3d of December, 1846, it was admitted into the Union as an independent State.

STATE OF WISCONSIN.



1. Wisconsin is situated between latitudes 42° 30′ and 46° 58′ north, and longitudes 87° 8′ and 92° 54′ west; and is bounded on the north by Lake Superior and northern Michigan, on the east by Lake Michigan, on the south by Illinois, and on the west by Iowa and Minnesota. From the two last named States it is chiefly separated by the Mississippi and St. Croix rivers.

2. The greatest length of the State north and south is 362 miles, and its greatest width, which occurs on the 45th parallel, is about 260 miles. Its outline, however, is irregular, and its southern line measures only 146 miles. The area is computed at 53,924 square miles, or 1.84 per cent. of the whole area of the Union.

3. The distinguishing features of Wisconsin are the uniformity of its elevation, and the shape of its surface, which is neither mountainous, hilly, nor flat, but gently undulating. The country west of Sugar River, and south of the Wisconsin, is somewhat broken, principally by the dividing ridge upon which the road from Madison to Prairie du Chien passes. In this section known as the "Mines," are several peculiar elevations called "mounds."

4. West of the Wisconsin is a range of high hills, being the only elevations in the State either deserving or assuming the dignity of mountains. The southeastern portion of the State is marked by ravines at the streams, but little depressed below the surrounding level. Its prominent features are—the prairie, destitute of tree or shrub, and covered only by a luxuriant growth of grass, interspersed with flowers of every hue; the oak opening; the lake; the woodland on the borders of the streams; and the natural meadow.

5. Proceeding north to the Fox and Wisconsin rivers and Green Bay, the timber increases, and the soil gradually changes from the vegetable mold of the prairie to a sandy loam. The surface also becomes somewhat depressed and uneven, diversified with timber, rolling prairie, large marshes, and extensive swamps, having an abundant growth of cranberries and wild rice. Still north and west, the surface becomes more uneven and the streams rapid, affording an abundance of water-power for the manufacture of lumber from the immense forests of evergreen, scarcely surpassed on the Western continent. Wisconsin, indeed, may now be ranked as the first lumber State of the Union.

6. Wisconsin, in its lakes and watercourses, has excellent facilities for navigation and manufacturing purposes. It is almost surrounded by navigable waters; on the north is Lake Superior, on the east Lake Michigan, and on the west the Mississippi and River St. Croix, while on the northeast are the rivers Montreal and Menomonee. The interior rivers are the Wisconsin and Chippewa, falling into the Mississippi, and the Neenah or Fox, which, passing through Lake Winnebago, empties into Green Bay, an arm of Lake Michigan. The Wisconsin and Neenah are navigable almost to their sources, and approach each other so near that by a short canal from one to the other, navigation is secured from the lakes to the Mississippi. Other streams, some passing into Illinois, and some falling into the Mississippi within this State, and some emptying into Lake Michigan, furnish abundant water-power, and many afford excellent harbors at their mouths, at which great cities will eventually rise up and commercial depôts become established. Pure living streams permeate the whole country and drain its surface; and numerous small lakes diversify the landscape.

7. The largest lake is that called Winnebago, which is 24 miles long and 10 wide. The Four Lakes, in the midst of which stands the city of Madison, the capital of the State, are replete with exquisite scenery. In the north the lakes are distinguishing features, and in the southeast they are very numerous. These are the recipients and sources of beautiful streams, which, coursing in every direction, bless the land with unbounded fertility, and leave no portion of the beautiful country they adorn without a plentiful supply of good and generally pure water.

8. The limestone underlying the coal-fields of Illinois forms the immediate basis of the alluvion of southern Wisconsin. This geological district, in addition to that portion of the State which lies southerly of the valley of the Wisconsin, comprises the whole of the slope toward Lake Michigan. In many portions the lime-rock disappears, and the outcropping sandstone furnishes a fine material for building. The lead-bearing rock of the mineral region is a porous limestone, prevailing throughout Grant, Lafayette, and Iowa counties, comprising four fifths of the lead district of the Upper Mississippi. Deposits of iron ore, water-limestone, and beds of gypsum, together with other varieties of minerals, are found in localities more or less numerous throughout the limestone region.

9. All that section of the State which lies between Lake Superior on the north and the Falls of St. Anthony on the Mississippi and the falls of the other rivers flowing southerly, is primitive in its prevailing geological character; and it is within this primitive region that the copper mines of Lake Superior are found. In all that portion of the State lying between this primitive region and the limestone formation of the south and east, the transition sandstone prevails, interspersed with limestone, and more sparsely with rock of a primitive character. This formation comprises that section of the country drained by the Wisconsin and other rivers tributary to the Upper Mississippi, and below the falls of those streams. Within this geological district are found quarries of white marble, which promise to be abundant and valuable, and form future elements of great wealth to the inhabitants.

10. The coolness and short duration of summer, and the dryness of the atmosphere during winter, render Wisconsin one of the most healthy portions of the United States. The wet meadows, marshes, and swamps are constantly supplied with pure water from springs, and as they are not exposed during summer to a burning heat, they do not send forth those noxious and deleterious qualities so much dreaded in more southern and less favored latitudes. But though a comparatively cold climate, it is nevertheless one highly congenial to agriculture and grazing, and in no part of the State is labor interrupted by extremes of either heat, moisture, or cold. Perhaps, indeed, no other country enjoys a greater number of fair days during the year than obtains in Wisconsin.

11. The soil of the prairie consists of a dark-brown vegetable mold, from a foot to two feet deep, very mellow, and entirely destitute of stone or gravel, and for fertility and agricultural purposes can not be surpassed. The subsoil is a clayish loam, similar to the soil of the timbered lands, which latter, though less rich, is also suitable for cultivation. The mining region, unlike that of any other mineral district, promises a liberal reward as well to the farmer as to the miner. The soil of the evergreen district is mostly sandy, but is of ordinary productiveness. The "prairies" of Wisconsin are not so extensive as in other States, and are so skirted and belted by timber that they are well adapted to immediate and profitable occupation. The "opening" comprises a large portion of the best lands. The low level prairie, or natural meadows, is so generally distributed over the face of the country, that the settlers on a fine section of arable land finds on his own farm, or in his immediate neighborhood, abundant pasturage for his stock in summer on the open range, and hay for the winter for the cutting—the bounty of Naturé supplying his need in this behalf till the cultivated grasses may be introduced and become sufficient for his use.

12. The pineries of Wisconsin, as to their extent and value, can hardly be overrated. That of the Upper Wisconsin and its tributaries is the most extensive, and distinguished still more for the fine quality than the inexhaustible quantities of its timber. The other localities of the white pine and other evergreens are mainly on the Wolf, the great northern affluent of the Fox, the tributaries of Green Bay, and on the La Crosse, the Black, the Chippewa, and the St. Croix, affluents of the Mississippi. The rapids of these streams furnish abundant water-power for the manufacture of lumber; and on the annual spring rise, and occasional freshets at other seasons of the year, the yield of the mills is floated from the Wolf into Lake

Winnebago and the Lower Fox, and from most of the other streams into the Mississippi. Aside from the manufacture of pine lumber, large quantities of oak scantling and plank, and basswood siding and lath, are annually produced. Throughout all the State wild animals and game are abundant; and are the objects of many of the wild sports of this delightful country.

13. The past has left many records within this State, and in the monuments of human skill still remaining, the antiquarian reads the legends of a civilized race, the name and lineage of which will never be known. The works at Aztalan, and the mounds along the Wisconsin, Neenah, and Pishtaka rivers, and in other parts, bear evidences of the fact. Those at Aztalan are best known and most frequently visited. The substance called brick at this place is evidently burned clay, showing marks of having been mixed with straw. There is a class of ancient earth-works in Wisconsin not before found in any other country, being made to represent quadrupeds, birds, reptiles, and even the human form. Near the Blue Mounds there is one representing a man 120 feet long, with a body 30 feet in breadth, the head 25, and its elevation above the general level of the prairie is 6 feet. A mound at Prairieville represents a turtle, the body 56 feet in length. At one place near the Four Lakes it is said that a hundred tumuli of various shapes and dimensions have been counted. Fragments of ancient pottery of a very rude kind are often found in various localities. A mound near Cassville represents an elephant or mastodon; and from this fact it has been inferred that the people who made these animal earth-works were cotemporaries with that huge monster, the bones of which are still occasionally found, or that they had then but recently emigrated from Asia, and had not lost their knowledge of the elephant.

14. Wisconsin in 1850 contained 305,391 inhabitants, collected in 57,608 families, and occupying 56,316 dwellings. This population gave 5.66 to the square mile, and was equivalent to 1.32 per cent. of the total of the United States. Its distribution to the counties was as follows:

Counties.	Population.	County Seats.
Adams	187	Dell Prairie.
Brown	6,215	Depere.
Calumet	1,748	Chilton Center.
Chippewa	615	Chippewa Falls.
Columbia	9,565	Portage City.
Crawford	2,498	Prairie du Chien
Dane	16,639	Madison.
Dodge	19,138	Juneau.
Fond du Lac	14,510	Fond du Lac.
Grant	16,169	Lancaster.
Green	8,566	Monroe.
Iowa	9,525	Mineral Point.
Jefferson	15,317	Jefferson.
Kenosha	10,734	Kenosha.
Lafayette	11,581	Shullsburg
La Pointe	489	La Pointe.
Manitowoc	3,702	Manitowoc Rap.
Marathon	508	Wausau.
Marquette	8,641	Marquette.
Milwaukee	31,077	Milwaukee.
Portage	1,250	Plover.
Racine	14,973	Racine.
Richland	903	Richland Center
Rock	20,750	Hudson.
Saint Croix	624	Willow River.
Sauk	4,371	Baraboo.
Sheboygan	8,379	Sheboygan.
Walworth	17,862	Elkhorn.
Washington	19,485	West Bend.
Waukesha	19,258	Waukesha.
Winnebago	10,167	Oshkosh.

—a large number of new counties have since been created, and in 1855 the population had increased to 552,451,* or a density of somewhat more than 10 inhabitants to the square mile. In 1836 the population numbered only 11,683, and in 1840 only 30,945 souls.

15. Of the total population in 1850 (305,391), 304,756 (99.79 per cent.) were white—164,351 males and 146,405 females, and 635 were colored persons—365 males and 270 females; and 197,912 (64.87 per cent.) were Americans (of whom 63,015 were born in this State), 106,695 (34.94 per cent.) were foreigners and 784 were of unascertained origin. In other States there were residing 3,775 natives of Wisconsin.

16. The occupations of 78,139 males over 15 years of age are given as follows—occupied in commerce, trade, manufactures, mining, and the mechanic arts 20,526, in agriculture 40,980, in labor not agricultural 13,196, in the army 77, in navigation 561, in law, medicine, and divinity 1,477, in other pursuits requiring education 800, in government civil service 185, in domestic service 191, and in occupations not specified 146 persons.

17. Wisconsin has hitherto been almost wholly devoted to agriculture, lumbering, and mining. Commerce, so intimately allied to successful internal industry, is carried on extensively, and already several important ports have been established for its accommodation. Manufactures are still in their infancy.

18. The lead mines in the southwest corner of the State are continuous with those of Galena and Dubuque, and are a source of great wealth to that section of the country. In the north, copper exists, and also iron and other minerals, but as yet these have not been worked to any great extent. The State has also excellent quarries of marble and other building materials.

19. In 1850 Wisconsin contained 20,177 farms, which included 2,976,658† (improved 1,045,499 and unimproved 1,931,159) acres of land, valued at $28,528,563, and the value of farming implements and machinery thereon was $1,641,568. Thus the average size of farms was 148 acres, and the average value $1,414, or including implements, etc., $1,495.

20. The livestock owned in the State in 1840 and 1850 was comparatively as follows:

	horses, etc.,	neat cattle,	sheep,	swine,
1840	5,735	39,269	3,462	51,383
1850	30,335	183,433	124,896	159,276

—the horses, etc., of 1850, included 156 asses and mules, and the neat cattle 64,339 milch cows and 42,801 working oxen. The stock of the last-named year was valued at $4,897,385, and the value of animals slaughtered in the previous year was $920,178. The products of animals are stated in the returns to have been—butter 3,633,750, cheese 400,283, and wool 252,963 pounds. The wool crop of 1840 was only 6,777 pounds.

21. The cereal crops of Wisconsin (bushels), according to the returns of 1840 and 1850, comparatively furnish the following figures:

	wheat,	rye,	Indian corn,	oats,	barley,	buckwheat,
1840	212,116	1,965	879,359	406,514	11,062	10,654
1850	4,286,131	81,253	1,988,979	3,414,672	269,692	79,878

—making a total in 1840 of 1,021,670, and 1850 of 10,060,605 bushels. The potato crop in 1840 amounted to 419,608, and in 1850 to 1,402,956 (including "sweet," 879) bushels; and that of peas and beans in 1850 to 20,657 bushels.

22. The other crops of 1850 consisted of—hay 275,662 tons, hops 15,930 pounds, clover-seed 483, and other grass-seed 5,003 bushels, beeswax and honey 131,005 pounds, flax-seed 1,191 bushels, flax 68,393 pounds, maple-sugar 610,976 pounds, molasses 9,874 gallons, tobacco 1,268 pounds, and wine 113 gallons. The value of market-garden products was $32,142, and of orchard products $4,823.

23. The total value of agricultural products in 1840 was $445,559, and in 1850, $11,503,371.

24. Manufactures, mining, and the mechanic arts in 1850 were carried on in 1,262 establishments, and the aggregate capital employed in these interests was $3,382,148. The value of raw material consumed in the year preceding 1st June, 1850, was $5,414,931; the number of hands employed 6,089, of which 5,798 were males, and 291 females, at a cost for labor of $1,712,496; and the value of goods produced was $9,236,640. The value of goods made in families in 1840 was $12,567, and in 1850, $43,624. Including these, the value of the productions of 1840 was $1,680,808, and of 1850, $9,280,264. A large share of the produce which is represented in these valuations is due to the vast quantities of lumber dressed for the market, and for which this State has been famous since its first settlement. These include also the lead mining interest.*

25. The direct foreign trade of Wisconsin is that carried on with the British possessions. In 1855 the exports to these were valued at $174,057, and the imports therefrom at $48,159. Otherwise its foreign trade is carried on through the ports of the Atlantic and Gulf of Mexico. The domestic lake trade, however, is large and increasing; the exports from Milwaukee alone in 1851 were valued at $2,607,824, and in 1855 at $17,329,571. The internal and transit trade as carried on by railroads, rivers, etc., is commensurately extensive, and is constantly increasing its field of operations by the opening of new lines of communication.

26. The works of internal improvement in Wisconsin are more prospective than existing; but great progress has been made in building railroads and other avenues of commerce. The system of railroads projected is extensive, and has been designed chiefly to unite the west and north with the lake ports of this State and Illinois. The improvements of the Fox and Wisconsin rivers, and the canal across the portage, give uninterrupted navigation from the lakes to the Mississippi, and must prove a work of vast importance to the welfare of the State.

27. The banking law of Wisconsin went into operation on the 19th April, 1853; previous to that date there were no legalized banks in the State. At the end of the year there were ten such institutions, doing business on a capital of $600,000, and at the end of 1855 there were 32, with an aggregate capital of $1,870,000. The liabilities of these institutions at the two periods consisted of—circulation $485,121 and $1,060,165, deposits $654,423 and $2,806,341, and other $710,954 and 1,078,874; and the assets held at the same periods were as follows—loans and discounts $1,163,066 and $3,906,079, stocks $578,721 and $1,200,083, real estate $8,461 and $94,260, other investments (1855) $1,501, due by other banks $325,946 and $363,161, notes of other banks $151,154 and $603,848, specie funds $20,136 and $57,218, and specie $182,482 and $531,718.

28. The government is based on the constitution adopted in convention on 1st February, 1848. The right of voting is secured to every male person, 21 years of age, who is a citizen of the United States, or who has declared his intention of becoming such, and who has for one year been a resident of the State. The general election is held on Tuesday, after the first Monday in November.

29. The legislature consists of a senate of 25 members elected for two years, one half annually, and a house of assembly of 82 members elected for one year. The annual session commences on the first Monday in January.

30. The governor and lieutenant-governor are elected by a plurality of all votes for two years, and commence their terms on the first of January. The secretary of state, the State treasurer, and the attorney-general are elected for the same terms.

31. The judicial power of the State is vested in a supreme court, 10 circuit courts, county (probate) courts, and justice's courts. The supreme court consists of a chief and two associate justices, and holds two terms annually at the capital. Its powers, except the issuing of habeas corpus, mandamus, etc., writs, are appellate. The circuit courts have original jurisdiction in all matters, and appellate from inferior courts. The judges, one in each circuit, are elected by the people therein, and hold two terms in each county annually. Judges of both these courts are elected for six years. The county court, except as a probate court, is abolished in all the counties but Milwaukee, where it has concurrent jurisdiction in law cases with the circuit court to the amount of $5,000. Justices of the peace are elected in the several towns for two years, and have jurisdiction throughout their counties in civil matters in which the damages claimed do not exceed $100.

32. The revenue is derived chiefly from taxes, licenses, school fund, etc. The total receipts for the year ending 31st December, 1850, amounted to $93,889, and 1855 to $529,241, and the expenditures for the same year to $62,746 and $486,715. In 1855 the general fund expenses amounted to $234,103, and the school and university fund expenses to $252,612. The public debt amounted in 1855 to $100,000, at 8 per cent. In 1850 the value of taxable property in the State was $26,715,525, and in 1855, $87,500,000.

33. The principal institutions supported wholly or in part by the State are the State Lunatic Asylum, the Institute for the Education of the Blind at Janesville, the Deaf and Dumb Institute at Delaware, and the State Prison at Waupun. Also the State University, and attached thereto a normal school.

34. The number of children returned as attending school in 1850 was 56,421, or one in every 5.41 of the whole population. The statistics of the schools on the 1st June of the same year presented the following figures:

Classification.	Number.	Teachers.	Scholars.	Income.
Primary and public schools	1,428	1,529	58,817	$113,133
Academies and private schools	58	86	2,723	18,796
Universities and colleges	2	8	75	4,700

—making a total of 1,483 schools, 1,623 teachers, and 61,615 scholars, and an annual income of $136,629. The number of persons over 20 years of age unable to read and write was 6,453, of whom 1,551 were Americans, and 4,902 foreigners, and 6,361 were whites, and 92 free colored persons.

35. On the 31st December, 1855 there were in the State 3,685 common schools, with 186,085 scholars, 114 select and private schools, with 10,185 scholars, and one incorporated academy, with 30 scholars. The total expenditure for the common schools was $250,075.

* The State census of 1st June, 1855, gives the population at 552,451, of which number 551,662 were white persons—296,312 males and 255,350 females, and 789 colored persons—431 males and 358 females. Natives 358,721, and foreigners 193,730.

† In 1855 the quantity of land taxed was 10,824,343 acres; but the quantity in private hands must have been much larger, as this included none purchased of the United States government for the preceding five years. It was valued at $65,767,329.

* In 1857 the production of pig lead was 17,569,932 pounds, of which 2,379,932 pounds were the produce of Iowa County, and 15,190,000 pounds of Lafayette County.

The capital of the school fund was $1,897,269, of which sum $1,859,242 was invested and drawing interest at 8 per cent. There is besides a university fund, which amounted in 1855 to $178,150.

36. The principal collegiate and professional institutions in the State in 1855 were as follows:

Institutions.	Location.	Founded.
Beloit College	Beloit	1847
Wisconsin University	Madison	1848
Sinsinawa College	Grant Co.	1848
Carroll College	Waukesha	1848
Lawrence University	Appleton	1849
Brockway College	Ripon	1852
Racine College	Racine	1852
Milwaukee University	Milwaukee	1855
Female College	Milwaukee	1855
Wayland University	Beaver Dam	1855
Nashotah (Epis.) House	Waukesha Co.	1841
Ecclesiastical (R. C.) Seminary	Milwaukee	1849
Med. Depart. Wisconsin Univ.	Madison	1855

37. Measuring the numerical force of the several religious denominations by the accommodation provided in the churches of each in 1850, it will be found that the most conspicuous are the Roman Catholic, Methodist, and Baptist; after these the Congregational and Presbyterian, and then in succession the Lutheran and Episcopal. The Universalist, Christian, Dutch Reformed, Free, Union, etc., have also a small representation in the State. On the 1st June, 1850, the total number of churches was 365, with accommodation for 97,773 persons; and the value of church property was estimated at $353,900.

38. Madison, capital of the State, is situated on the isthmus between Third and Fourth lakes, 86 miles west Milwaukee, in latitude 43° 5′, and longitude 89° 19′. It has a beautiful site. The isthmus is about three fourths of a mile wide, hilly, and affording an extensive view of the vicinity. Fourth Lake, to the northwest of the town, is six miles long and from three to four miles wide, with a depth sufficient for steamboat navigation. Third Lake is of somewhat inferior dimensions. The site was selected for the seat of government in 1836, and at that date was occupied by a single log cabin; in 1840 it contained only 376, and in 1850 only 1,525 inhabitants. Since this period it has been reached by the railroad, and in 1855 its population had suddenly expanded to 8,664 souls, prospering and progressing daily in material fortune. The Capitol is built on a public square in the center of the town, and



CITY OF MADISON.

from this point the streets radiate toward the cardinal points, and gradually descending to the shores 70 feet, which is the elevation of the Capitol site above the lakes. A mile west of the Capitol is College Hill, 120 feet elevation, on which stands the Wisconsin University, founded in 1848, and to which was added a medical department in 1855. Churches and schools are numerous. The other principal literary institution is the Wisconsin State Historical Society. The vicinity is a fine productive country, well watered, and full of grand scenery. Within and around the town there are extensive mills and other industrial establishments, and a large number of wholesale stores. Railroads are already completed to Milwaukee, Chicago, and Prairie du Chien, and are in progress of construction to other principal points and toward Minnesota and Lake Superior.

39. Milwaukee, the first commercial city of the State, is situated at the mouth of Milwaukee River, and on the west shore of Lake Michigan, 85 miles by railroad north Chicago. Latitude 43° 3′ 45″, and longitude 87° 55′ The city is built on the river flats and on the bluffs, which rise abruptly from the lake. The river is navigable for lake craft for two miles, and the harbor is being constantly improved so as to accommodate an immense trade.

40. Milwaukee is a regularly planned city, and well and substantially built. The material used in building is generally the yellow brick made in and which is peculiar to this region, and is largely exported. (Trinity Building, in New York city, is of this material.) The streets and many of the stores are lighted with gas and well supplied with water. Among the public buildings the most conspicuous are the new Custom House, the Milwaukee University, 35 to 40 churches, a female college, several orphan asylums and other charitable institutions, public schools, etc.

41. The manufactures of the city are already considerable, and are greatly indebted for their successful prosecution by damming the river above navigation, by which a large water-power is created. The total value of articles manufactured in 1855 was $5,590,412, consisting of flour, machinery, locomotives, castings, carriages, wagons, leather, lumber, cabinet-ware, soap and candles, agricultural implements, paper, bricks, etc. Pork and beef packing is also a large interest. The commerce of Milwaukee is second only to that of Chicago. The arrivals by lake in 1855 were 2,802, viz., 1,204 steamers and 1,598 sailing vessels, together 980,700 tons. In the same year the exports were valued at $17,329,571 and the imports at $18,649,832. Among the exports are enumerated—flour 235,000 barrels, pork 36,546 barrels, beef 9,476 barrels, wheat 4,028,966 bushels, bricks 6½ millions, lard 934,706 pounds, wool 625,230 pounds, butter 450,000 pounds, hams and shoulders 1,640,800 pounds, etc.

42. The means of communicating with the interior are ample, and have greatly stimulated production along their lines. The Milwaukee and Mississippi Railroad is now completed to Prairie du Chien, *via* Madison, and the La Crosse and Milwaukee Railroad is completed to Portage City.* Other railroads reach to Watertown, Stevens' Point, Janesville, Fond du Lac, etc., and to Chicago; and in a few years the city will have railroad communication with all the other principal places in this State and with the West generally. A ferry connects it with the Detroit and Milwaukee Railroad at Grand Haven. Few cities, indeed, have made such rapid progress in means and development. The place was settled in 1835; in 1840 it contained only 1,754 inhabitants; but in 1850 its population amounted to 20,061. In 1855 it numbered 30,447 inhabitants!

43. Appleton is a new and thriving town on the Neenah, four or five miles below Winnebago Lake. The river is here interrupted by rapids, but its navigation has been improved by dams. It is the seat of Lawrence University. Beaver Dam is a village on the creek so called, and on the La Crosse and Milwaukee Railroad, 61 miles west-by-north Milwaukee. It is important for its water-power, and also on account of its being the center of several projected railroads. Wayland University is located here. Berlin, on the Neenah,, is a thriving river town, and a shipping place of consideration. The Milwaukee and Horicon Railroad passes through it, 92 miles northwest Milwaukee. Beloit is a flourishing town on Rock River, near the Illinois line, and is a place both of manufactures and trade. Several railroads center here and connect it directly with Chicago and Milwaukee on Lake Michigan, and Galena and Savannah on the Mississippi; also with Madison, etc. It is the seat of Beloit College. Delavan, on the Racine and Mississippi Railroad, 46 miles west-by-south Racine, and near the Illinois line, is a thriving town of 2,200 inhabitants, and the seat of the State Institution for the Deaf and Dumb. Dodgeville is a mining town six miles north Mineral Point, and has about 1,600 inhabitants.

44. Fond du Lac has a beautiful site at the south extremity of Winnebago Lake, and within the past ten years has become a flourishing center of trade. It is connected with Milwaukee and Chicago by railroad, and several other lines will center here. Population (1850) 2,014, and (1855) about 4,500. Green Bay, at the mouth of the Neenah, in Green Bay, is a beautifully situated town and has a secure harbor, suitable for the largest class of lake steamers. It is the entrepôt of a large commerce, and the best port of northeastern Wisconsin. It was formerly called Navarino, and includes also the village of Astor. Population (1850) 1,[illegible]23. and (1855) about 4,000. On the opposite side of the river is Fort Howard and the village of the same name.

45. Janesville, on Rock River, on both sides of which it is built, is, next to Madison, the most important interior town. A large trade centers here, and also considerable manufactures. At this point the southern line of the Milwaukee and Mississippi and the Chicago, St. Paul and Fond du Lac railroads intersect, and connect it with the great marts of this State and of Illinois. It is the seat of the Wisconsin Institute for the Education for the Blind. Population (1850) 3,451, and (1855) 7,018. Kenosha is the most southern lake port of Wisconsin, and has a good harbor, from which large quantities of produce are shipped. The Chicago and Milwaukee Railroad passes through it, 34 miles south Milwaukee, and the Kenosha and Beloit Railroad, when finished, will give it a ready access to the interior, and greatly facilitate its trade. Population (1850) 3,455, and (1855) about 6,000.

46. La Crosse is a small town on the Mississippi, and will be the western terminus of the La Crosse and Milwaukee Railroad, 103 miles west Madison. A railroad is also projected from Prairie du Chien, 61 miles south. With these completed it will become a point of great commercial importance, and the entrepôt of a large northwestern trade. Manitowoc is a town on Lake Michigan, 95 miles north Milwaukee. It has a good harbor and is an active business place. A railroad is being built to the interior.

47. Mineral Point is the chief town of the southwestern lead and copper region, and has an active trade. A railroad 32 miles long extends to Warren on the Illinois Central Railroad, whereby it has connection with Dubuque, Galena, and Chicago, and also the whole country to the south.

48. Portage City, at the Winnebago Portage, and on the canal connecting the navigable Wisconsin and Fox Rivers, has, since the through navigation was established, become a place of great commercial importance, and an entrepôt between the lakes and the Mississippi. Its site was formerly occupied by Fort Winnebago. The city has now also various industrial establishments, several large hotels, and is rapidly becoming what such a position would demand. The La Crosse and Milwaukee Railroad reaches this place from Milwaukee, 95 miles, and will soon be completed to the Mississippi; and a railroad is in progress to Madison, 40 miles south.

49. Prairie du Chien, a town on the Mississippi, four miles above the confluence of the Wisconsin, is one of the oldest settlements in the State. The site is a level plain, backed on the east by rocky bluffs. It is reached from Milwaukee and Madison by the Milwaukee and Mississippi Railroad, 193 miles from the former and 98 miles from the latter. A railroad is also projected to La Crosse. It is a place of active trade, and has a large shipping business, which is constantly increasing in amount.

* Opened to La Crosse in 1858.

50. Racine is a town and port on Lake Michigan, at the mouth of Root River, and on the line of the Chicago and Milwaukee Railroad, 62 miles from the former and 23 miles from the latter. It has one of the best harbors on the lake, and a large and flourishing commerce. The Racine and Mississippi Railroad connects it with the interior. Its manufactures are also important, comprising furnaces, machine shops, flouring-mills, etc. The city is built on an elevated site, and is laid out in wide streets, which are lined by substantial stores, warehouses, and dwellings. It is the seat of Racine College, founded in 1852 by the Episcopalians, and has numerous handsome churches, schools, etc. Population (1850) 5,107, and (1855) 8,044. Ripon, on the Milwaukee and Horicon Railroad, 81 miles northwest Milwaukee, is a flourishing town and the seat of Brockway College, founded by the Presbyterians in 1853.

51. Sheboygan is situated on Lake Michigan at the mouth of Sheboygan River, 60 miles north Milwaukee. It has an eligible harbor, and ships large quantities of lumber, etc. Population (1855) 3,630. This town has sprung up within the past ten years. Shullsburg is a thriving town, 15 miles northeast Galena, and is the depôt of a large trade in lead, etc. Stevens' Point, on the Wisconsin, 128 miles north Madison, is a flourishing village engaged in the lumber business. The river affords an immense water-power, and several manufactures have been established here. Hereafter it will be a central railroad point. Superior City is a new settlement on the extreme southwest shore of Lake Superior, and will be the northern terminus of the St. Croix and Superior Railroad.

52. Watertown is built on Rock River, between Madison and Milwaukee, 45 miles from each. The Chicago, St. Paul and Fond du Lac and the Milwaukee, Watertown and Madison railroads here intersect. It is built on both sides of the river, at the great bend, and the rapids above the city afford immense hydraulic power, which is used for manufacturing purposes. There are in the town flouring-mills, saw-mills, a foundery and machine shop, a pottery, and various other establishments for the manufacture of agricultural implements, wagons, cabinetware, etc. Its trade is very valuable and increasing. Population (1850) 1,451, and (1855) about 6,300. Waupun is the seat of the State Prison. It is situated on the Milwaukee and Horicon Railroad, 66 miles northwest Milwaukee and about 18 miles southwest Fond du Lac.

53. Wisconsin, in common with all the original Northwestern Territory, was ceded by France to Great Britain in 1763. The claim of Virginia upon this country was ceded to the United States on the 1st of March, 1784. With the increase of population in the territories, and the consequent changes, the country comprised within this State has successively formed parts of the Ohio, Indiana, Illinois, and Michigan territories. As a separate territory, Wisconsin was organized 4th July, 1836, and the first legislature convened 25th October, in the same year. On the 12th of June, 1838, the Territory of Wisconsin was divided, and that portion on the west side of the Mississippi (which had been attached to Michigan in 1834) erected into the Iowa Territory; and on the admission of Wisconsin into the Union its limits were further curtailed by making the River St. Croix its western limit, and giving the territory between that river and the Mississippi to the new Territory of Minnesota. Wisconsin became a State by an act of Congress passed 29th of May, 1848, and the new government was immediately organized.

STATE OF MINNESOTA.



FALLS OF MINNE-HA-HA.

1. Minnesota is situated between latitudes 43° 30′ and 49° north, and longitudes 89° 30′ and 97° 20′ west; and is bounded on the north by British America, on the east by Lake Superior and the State of Wisconsin, on the south by Iowa, and on the west by Dacotah Territory. Wisconsin is separated from Minnesota chiefly by the Mississippi and St. Croix rivers, and Dacotah by the Big Sioux River and the Red River of the North.

2. The greatest extent of Minnesota north and south is about 378 miles, and the general width thereof about 200 miles. The area is computed at 75,465 square miles, or 2.57 per cent. of the whole area of the Union.

3. Minnesota occupies the most elevated surface between the Gulf of Mexico and the Arctic Sea, and forms the watershed of three of the greatest basins of North America: that of the Missouri-Mississippi, that of the St. Lawrence, and that of Hudson's Bay. The sources of the Red River of the North and of the Mississippi are nearly on the western border, and at an elevation of about 2,000 feet above the waters of the Gulf, and are separated only by a scarcely perceptible rise of land. The sources of the Minnesota and the Red River are two neighboring lakes. The Hauteurs des Terres or Highlands form the dividing ridge between the Mississippi and Lake Superior. Thus within the area of a few thousand miles are found the sources of rivers emptying severally into the Arctic Sea, the Atlantic Ocean, and the Gulf of Mexico, and the mouths of which are 5,000 or 6,000 miles apart—one passing through a region of ice and snow, a second traversing a line of moderate temperature, and another descending southward through twenty-two degrees of latitude, from a region of wild rice to one of the cotton-plant and the sugar-cane.

4. With the exception of the Hauteurs des Terres there is nothing assimilating mountain in all the State. This range traverses the northeast section in a general south-by-west direction for about 280 miles, and demarks the dividing line between the basins of the Mississippi and St. Lawrence. The region west of the Mississippi has several plateaux or elevated prairies, which mark the limits of various river basins. The most remarkable of these are Coteau des Prairies (prairie heights), so called, and the Coteau du Grand Bois (wooded heights). These, however, are but slightly elevated above the general surface. Otherwise than these the nearest approach to mountains is in the towering bluffs along the shores of the Mississippi, and from Dubuque to St. Paul these bluffs are the grandest feature of the local scenery. With such exceptions there is no portion of Minnesota over which a loaded wagon may not be driven. The great body of the country alternates between river bottoms and high rolling prairies, the latter interspersed with lakes and pools, and in scenery is rich beyond conception.

5. The great number and size of the lakes in this State form one of its most distinguishing characteristics. Many are 20, 30, or 40 miles in extent, while others are less than a mile in circuit. The largest of these are—the Lake of the Woods, on the northeast border; Mille Lacs, in the eastern section; Red Lake, in the north; Leech, Cass, and others. Between the St. Croix and the Mississippi they are innumerable. Many are covered with wild rice, and are alive with water-fowl; others are fringed with timber, and the shores of nearly all are of gravel or pebbles, and entirely free from marshes or sloughs. In numerous instances these lakes are on a lower and lower level, and are strung together by a common stream successively passing from one to the other, and forming a singular navigation, by which the most remote parts of the country are accessible.

6. The Mississippi takes its rise in Itasca Lake, and issuing in a small pellucid stream, begins its course toward the Gulf. For 800 miles its course is within Minnesota, and of this



FORT SNELLING, AT THE CONFLUENCE OF THE MINNESOTA WITH THE MISSISSIPPI.

length 500 miles—200 below and 300 above the Falls of St. Anthony, its waters are navigable. The Red River, passing north, is the outlet of numerous small lakes, and ultimately finds its way to Hudson's Bay. Its banks are level prairies of great fertility. It has a winding course of nearly 500 miles on the western border of this State. Of the tributaries of the Mississippi, the principal from the east are the Rum and St. Croix rivers, the latter dividing Minnesota from Wisconsin. The slope toward Lake Superior is chiefly drained by St. Louis River and by a chain of lakes forming the northeastern boundary. West of the Mississippi the country is drained either by its immediate tributaries, or else by tributaries of the Missouri.

7. The great river of this region is the Minnesota or St. Peter's, which traverses the valley between the Coteau des Prairies and the Coteau du Grand Bois. Its course to the confluence of the Mankato or Blue Earth is southeast, and thence to the Mississippi northeast, and its total length about 460 miles. The river is navigable for steamers for about 60 miles, and for flat-boats 120 miles. A large number of rivers of smaller dimensions reach the Mississippi on this side. The largest tributary of the Missouri River from this State is the Big Sioux, which forms the west boundary.

8. The larger part of Minnesota, including the central and northeastern portions, appears to belong to the igneous and metamorphic formations. In the northern and southeastern districts there are extensive formations of lower silurian rocks, and in the valleys of the Minnesota and Mississippi magnesian limestone forms the basis of many of the bluffs. Extending from the center eastward to Lake Superior is a narrow band of new red sandstone, and on the shores of the lake are alternations of metamorphic schists, slates, and sandstones, with volcanic grits and other bedded traps and porphyries, intersected by basaltic and greenstone dikes, with occasional deposits of red clay, marls, and drift.

9. The mineral resources of the country are not yet ascertained. Iron and coal exist in the southern parts, but it is not supposed that either are very widely diffused. Copper and lead have also been found; the latter on the Waraju River, and the former in masses in a position referable to the action of the waters. Salt is abundant. The most notable mineral of Minnesota, however, is the red clay, from which the Indians manufactured pipes, and which may hereafter be applied to so many economic purposes. Its chief locality is the Coteau des Prairies, but it is also found in many other localities.

10. The winters of Minnesota, especially in its northern sections, are extremely severe. Here the mercury frequently freezes in the tube. On the other hand the summers are moderate, and occasionally a high temperature is noted. The weather nearer the lake is milder, and of course the climate in the south yields to the influence of the latitudes. The rivers are frozen over early in November, and generally remain closed to the middle of April. On the whole the climate is dry; and while the early winters prove unfavorable to the ripening of Indian corn, the steady cold and the dryness of the atmosphere are in like ratio favorable to winter-sown wheat and the hardier cereals. Most of the fruit-trees of temperate climates are easily acclimated, and, except the peach, almost everywhere perfect their fruit.

11. The soils vary in the different sections. In the northeast, except near the rivers, the

surface is covered with drift, and is perhaps too marshy for successful cultivation. Here the timber is dwarfed. The country on the Red River, however, is excellent, and equal in soil to the best bottom lands of Illinois, producing fine crops of grain, fruit, etc. Wild rice, berries of various kinds, wild grapes, and the crab-apple are indigenous. The forests consist of the same timbers as those usually found on the upper Mississippi; in the swamps the tamarac, cypress, and cedar, and in the bottoms oak, ash, linden, elm, walnut, maple, etc. On the Rum, St. Croix, and Pine rivers there are vast forests of pine, and, according to Owen, a belt of forest crosses the State in latitude 44° 30′. These pineries are already become the sites of vast lumbering operations, and a steady source of wealth to those interested in them. As a whole, however, Minnesota is not a densely wooded country.

12. Minnesota in 1850 contained 6,077 (3,716 males and 2,361 females) inhabitants, comprised in 1,016 families, and occupying 1,002 dwellings. This was equal to 0.08 persons to the square mile, or 0.03 per cent. of the population of the Union. Of this population 2,227 were in Ramsay, 1,134 in Pembina, 1,056 in Washington, 584 in Dacotah, 418 in Benton, 243 in Wabashaw, 160 in Wahnahta, 158 in Mankahta, and 97 in Itaska County. The number of Americans was 4,007, of foreigners 2,048, and of others whose origin was not ascertained 22. In 1855 the population was estimated at 68,812; and in 1857 a State census (excluding mixed breeds and civilized Indians) made the total population 153,332, or 2.03 persons to every square mile of territory.* The population was housed in 31,730 dwellings.

13. Agriculture, lumbering, and commerce are the essential industries of Minnesota. Mining and manufactures can scarcely be said to exist. In 1850† cultivation extended over 5,035 acres, and 23,846 acres were occupied but not cultivated. The value of farms was estimated at $161,943, and of farming implements at $15,981. The livestock consisted of—horses 860, asses and mules 14, milch cows 607, working oxen 655, other cattle 740, sheep 80, and swine 734—valued in the aggregate at $92,859. The crops of 1849–50 were—wheat 1,401 bushels, rye 125, oats 30,582, Indian corn 16,725, barley 1,216, buckwheat 515, potatoes 21,345, and beans and peas 10,002 bushels, and hay 2,019 tons, etc. Minnesota had, according to the same census, five manufacturing establishments, in which $94,000 were invested, and which employed 63 hands. The raw material consumed was valued at $24,000, and the value of the products of the year amounted to $57,500.

14. The State has no direct foreign commerce; but a considerable trade is carried on by steamers on the Mississippi, and a regular communication maintained with the Atlantic ports *via* Milwaukee and Chicago, and with those of the Gulf *via* St. Louis. Several interior railroads are being constructed, and if the northern route to the Pacific is ever built, it will pass through this Territory.

15. The State government is based on the constitution of the 30th August, 1857, and was organized on the 22d May, 1858. The right of voting is secured to all male white persons 21 years of age, who are or have declared their intention to become citizens of the United States, and have resided therein one year and the State four months next preceding; also to persons of mixed white and Indian blood, and to persons of Indian blood who have adopted the language, customs, and habits of civilization, and have resided in the district in which they offer to vote ten days precedent.

16. The legislature consists of a senate of 37 members elected for four years, and a house of representatives of 80 members elected for two years. No religious or property qualifications are required. The governor and lieutenant-governor, and the secretary of state, treasurer, and attorney-general are elected for two years, and the State auditor for three years.

17. The judicial power is vested in a supreme court, district courts, county or probate courts, and justices of the peace. All judges and justices are elected by the people for terms in no case of longer duration than seven years.

18. The revenue for the support of the government is derived from taxation. The value of taxable property in the State has increased in a wonderful degree: in 1850 the sum of the valuation was only $262,088, in 1855 it was $9,031,157, and in 1857, $23,347,701. Up to the end of June, 1856, the United States had sold upward of 2,000,000 acres of land, of which 1,001,529 acres had been sold in the year then ending. These figures are exclusive of what may have been sold on account of the school fund, etc.

19. St. Paul, the capital, is situate on the left bank of the Mississippi, a few miles below the Falls of St. Anthony, and in latitude 42° 52′ 46″ north, and longitude 93° 4′ 54″ west. The site is a high bluff, and overlooks the river, which here flows in an east-by-north direction. Steamboat navigation ceases at this point, and hence the commercial prospects of the place are greatly enhanced.* St. Paul is a town of but a few years' growth; in 1842 it consisted of a single trading-house, and seven years later it was the site of a Catholic mission. Since the latter period it has progressed rapidly, and now (1858) contains an imposing capitol and has all the accompaniments of a large city—churches, schools, hotels, manufactories, warehouses, etc., and a population of 8,000 or 9,000 souls. In 1850 it contained only 1,338 inhabitants.

20. St. Anthony is situate on the left bank of the river, at the falls of the same name, and at the head of navigation. It has immense advantages for manufacturing, and already has several mills. The State University is located here. The population in 1850 was 656, and now is estimated at 3,500. A fine suspension bridge connects it with Minneapolis, a thriving town on the opposite side of the river.

21. Fort Snelling, lower down the river, and at the confluence of the Minnesota, was formerly a federal military post; and Mendota is a thriving village on the opposite side of the confluence. Still lower down the Mississippi there are numerous settlements, several of them important, as Wabashaw, Minnesota City, Winona, La Crescent, etc.



FALLS OF ST. ANTHONY, WEST OF HENNEPIN ISLAND.

22. Stillwater is situate on the St. Croix Lake, 30 miles from St. Paul. It is the seat of the State Penitentiary, and is otherwise a very flourishing town, having a large trade in lumber. In 1850 it contained 621 inhabitants, and at present has at least 1,800. Kaposia, near the entrance of the St. Croix into the Mississippi, has also an excellent location.

23. Pembina is a settlement on the British boundary, where it is cut by the Red River. The settlement was originally made by Lord Selkirk, and now contains more than 1,500 inhabitants, principally persons of mixed Indian and white blood. They are industrious agriculturists and hunters; and have a very neat village on the east bank of the river. Their traders have on several occasions come down to St. Paul in dog-carts. The settlement extends into the British territory; and, indeed, it was a mistake of the original settlers in the latitude of the place that gave Minnesota its southern portion.

24. Minnesota has also a large number of other flourishing towns—on the Minnesota River as Shakopee, Carver City, Henderson, St. Peter, South Bend, etc.; on the Mississippi above the Falls as Manomin, Anoka, Monticello, St. Cloud, Watab, Little Falls, etc.; and within the triangular space between the Mississippi and Minnesota as Preston, Rochester, Faribault, etc. Every day, indeed, is expanding these and adding new towns to their numbers, and certainly they have hitherto so prospered as to augur well for their future welfare.

25. That portion of Minnesota lying on the north side of the Mississippi originally belonged to the country termed the "Territory Northwest of the Ohio," and, had the ordinance of 1787 been fully complied with, would have been included in the fifth State (Wisconsin) formed from that region. This section comprises an area of about 22,336 square miles. The vast country west of the Mississippi to the Missouri and White Earth rivers (all of which was included in the Minnesota Territory) was originally a portion of Louisiana, and came into the possession of the United States under the treaty of 1803. The whole country was discovered by the French, whose missionaries and traders nearly 200 years ago were settled therein.

26. The United States had little authority in this region before 1812. In 1816 a law of Congress excluded foreigners from the Indian trade, and for the encouragement of its own citizens the military post of Fort Snelling was established in 1819. Previous to this period a settlement had been formed on the Red River, under the auspices of Lord Selkirk; but otherwise, and up to the period of its organization as a Territory of the United States, the population consisted chiefly of Indians, who were annually visited by the traders, and perhaps a few Catholic missionaries, who had settled in the southeast.

27. Minnesota was organized as a separate Territory of the United States under the act of Congress, 3d March, 1849. In the subsequent eight years its increase was so rapid as to justify its erection into a State, and the permission of Congress having been granted early in May, 1858, its new organization was inaugurated on the 23d of the same month. As a Territory, its western limits extended to the Missouri and White Earth rivers; but on its coming into the Union as a State, the limits in that direction were curtailed, and all the land west of the Big Sioux and Red rivers now forms the Dacotah Territory.

28. Among the explorers of Minnesota the names of Carver, Pike, Cass, Long, Beltrami, Schoolcraft, Nicollet, Owen, etc., will ever be intimately connected with its history. The honor of verifying the sources of the Mississippi belongs to Schoolcraft.

* The extent and population of counties in 1857 were as follows:

Counties.	Area, sq. m.	Population.	County Seats.
Anoka	426	1,559	Anoka.
Benton	522	688	Watab.
Blue Earth	750	3,629	Mankato.
Brown	960	1,629	New Ulm.
Buchanan	890	120	——.
Carlton	892	239	——.
Carver	373	3,117	Carver City.
Cass	3,600	193	Chaska.
Chisago	384	1,765	Taylor's Falls.
Cottonwood	720	173	——.
Crow Wing	558	176	Crow Wing.
Dacotah	575	8,158	Mendota.
Dodge	432	3,680	Manterville.
Faribault	720	689	Verona.
Fillmore	864	9,803	Preston.
Freeborn	720	2,486	Nicholas.
Goodhue	864	6,932	Red Wing.
Hennepin	593	13,065	Minneapolis.
Houston	576	5,264	Caledonia.
Isante	528	184	——.
Itasca	5,400	630	——.
Jackson	720	50	——.
Lake	4,050	1,212	——.
Le Sueur	468	3,610	Waterville.
McLeod	720	822	Glencoe.
Manomin	290	514	Manomin.
Martin	720	56	——.
Meeker	720	1,025	Forestville.
Mille Lac	1,540	—	Mille Lac.
Morrison	644	751	Little Falls.
Mower	708	2,856	Austin.
Murray	720	91	——.
Nicollet	450	3,437	Travers desSioux
Nobles	820	16	——.
Olmstead	648	8,458	Rochester.
Pembina	21,678	1,909	Pembina.
Pierce	1,700	495	Fort Ridgeley.
Pine	1,160	102	Chengwatana.
Pipe Stone	864	24	——.
Ramsey	122	12,747	St. Paul.
Rossville	260	245	Sioux Agency.
Rice	516	6,440	Faribault.
Rock	720	52	——.
St. Louis	6,300	1,560	Falls of St. Louis.
Scott	360	5,302	Humboldt.
Sherburne	444	506	Shakopee.
Sibley	600	4,147	Henderson.
Stearns	1,139	2,840	St. Cloud.
Steele	432	2,597	Owatanna.
Todd	1,900	86	Long Prairie.
Wabashaw	659	5,109	Wabashaw.
Washington	400	6,183	Stillwater.
Wasaca	432	2,366	——.
Winona	540	8,203	Winona.
and Wright	724	2,243	Monticello.

† The results of the census of 1850 are here given to render the statistical series of the work complete. They can have no reference to the present condition of the State; but there are no later figures on which to base any estimates. Perhaps the industrial returns for Iowa in 1850 would apply to Minnesota in 1857.

‡ Forty-one steamboats arrived at St. Paul in 1844. Since that year to 1857, inclusive, the arrivals annually have been thus—48, 24, 47, 68, 85, 104, 119, 171, 235, 310, 563, 819, and 964. In 1857 the river was open only 198 days, being considerably below the average.

TERRITORY OF DACOTAH.

1. Dacotah is situated between latitudes 42° 30′ and 49° north, and longitudes 96° 30′ and 103° 30′ west; and is bounded on the north by British America, on the east by Minnesota (from which it is divided by the Red River of the North and Big Sioux River), and on the southwest and west by Nebraska Territory, from which it is divided by the Missouri and White Earth rivers.

2. The greatest extent of this Territory north and south is about 448 miles. The width on the north boundary is nearly 300; but southward it gradually narrows as the Missouri, in

its southerly course, trends to the east, and terminates in a point where the Big Sioux meets the main stream. The area is computed at 90,561 square miles, and constitutes 3.09 per cent. of the total of the United States.

3. This large Territory lies between the Missouri River and the Sioux and Red rivers, and is drained wholly by their affluents. Like Minnesota, its surface is very elevated, and its climate cold. Lakes are numerous. The highest land is the Plateau du Coteau du Missouri, which occupies the greater part of the west between the Missouri and its tributary the Riviere à Jaques, and the country between the latter and the Red River is broken by considerable hills.



BUFFALO HUNTING.

The soils are said to be fertile, and though a large portion is undoubtedly unfit for cultivation, much of it, especially near the rivers, is well adapted for the growth of grain and other food crops, etc.

4. Little, however, is known of the country. It is still in the possession of the Sioux and other northern tribes, and has long been a favorite hunting-ground of the Pembina Indians. The country is well timbered, and in the north has extensive salt-fields, which will in the future constitute a valuable resource.

5. This Territory formed the western section of the Territory of Minnesota until 1858, in which year the State of Minnesota was established. It contains a few civilized inhabitants, but how many is not known; nor is it yet under any organized government. The Northern Pacific Railroad, the route for which was surveyed by Governor Stevens in 1854, will pass through it; and it is probable that in a year or two a territorial administration will be established. The subject has already been introduced to the consideration of the national government.

TERRITORY OF NEBRASKA.



1. NEBRASKA is an extensive Territory lying between latitudes 40° and 49° north, and longitudes 95° 20′ and 113° 30′ west; and is bounded on the north by British America, on the east by Dacotah, Iowa, and Missouri, on the south by Kansas, and on the west by the crest of the Rocky Mountains.

2. The extent of Nebraska north and south is 622 miles, and the width thereof, east and west, from 480 to 540 miles. The area is computed at 335,882 square miles, or 11.44 per cent. of the total of the United States. It is the largest separate government in the Union.

3. The greater portion of this country is an immense plain, gradually sloping from the mountains eastward to the Missouri, to the basin of which river and the Mississippi the whole Territory belongs. The whole is of sufficient elevation to free it from marshes and swamps, and to secure it proper and seasonable drainage. A very small portion is mountainous, except, indeed, that part in the extreme west lying contiguous to the Rocky Mountains.

4. The principal rivers which flow through the Territory are the Missouri and its tributaries, the Yellowstone and Nebraska or Platte being the largest. From the latter the Territory has been named. The country on both sides the Platte, extending as far west as the Elkhorn on the north, is rolling and broken, the rounded and flat summits indicating a general prairie level, broken by deep ravines, occasionally abrupt, but in most cases sloping gradually to the bottom. In these depressions timber and water are nearly always to be found, the latter consisting of fine, purling brooks, rising from springs in the hillsides, and meandering down through beautiful grassy valleys to the larger streams, with which this part of the country is well supplied. This character of country extends up the Missouri to and beyond the Black Bird Hills.

5. South of the Nebraska the undulating country extends farther into the interior, but finally on both sides of that river the undulations terminate in vast prairies or plains, stretching out on every side as far as the eye can reach. Occasionally the eye is relieved by the sight of a line of timber in the distance, which usually marks the course of some stream. The character of much of this country is unproductive and sterile; in other parts a scanty vegetation is produced. The quality of the land deteriorates after leaving Loup Fork, and a great part of the country between Wood River and Fort Laramie, except along the immediate valley of the Nebraska, is entirely unfit for cultivation.

6. The section of country west of Fort Laramie embraces the Black Hill district. The whole of this is a more elevated region—detached and broken points of mountain flatten off toward the river, in places running abruptly down to it. This is a well-watered country, and the more elevated hills skirting the base of the mountains are generally well covered with pine and cedar. The valleys formed by the numerous streams flowing among the ridges and hills are clothed luxuriantly with grass, and together constitute a country at once beautiful and picturesque.

7. Among the mineral resources of the Territory coal is perhaps the most valuable. It abounds all along the Missouri line, and probably as far west as the Black Hills. Copper is extensively deposited in the Black Bird Hills. Otherwise the Territory affords abundance of iron, limestone, potters' clay, etc., and it is probable that future exploration will open to the settlers a mineral wealth commensurate with the extent of the country embraced.

8. Nebraska, according to a census taken in 1855, had in that year 4,565 inhabitants, and according to a second enumeration, taken in 1856, it contained 10,716 inhabitants. The distribution of this population at the two periods is as follows:

Counties.	Population. 1855.	Population. 1856.	County Seats.
Burt	89	146	Tekama.
Cass	712	1,251	Plattsmouth.
Clay	(Included with Lancaster.)		Clayton.
Cumming	—	8	Catharine.
Dacotah	—	646	Dacotah.
Dodge	139	313	Fontenelle.
Douglas	1,028	3,641	OMAHA CITY.
Lancaster	—	125	Mayaretta.
Nemaha	604	1,277	Brownsville.
Otol	1,188	1,845	Nebraska City.
Pawnee	142	301	Pawneeville.
Platte	—	36	—.
Richardson	299	529	Archer.
Washington	207	730	Fort Calhoun.

—these populations are exclusive of Indians residing within the Territory.

9. Omaha City, the capital, occupies a beautiful site on the west bank of the Missouri, directly opposite to Council Bluffs City, Iowa, and about 20 miles north of the Nebraska River. The city stands on a plain, 50 feet above the river, and is bounded south, west, and northwest by a line of low ridges. Its south point rests on Omaha Creek. In the plan of the city the avenues and streets are wide and convenient, and cross at right angles, and in this arrangement a due regard has been paid to public squares, parks, and other conveniences of a large town. Limestone, suitable for building, is found a short distance south of the city, and there is abundance of brick-clay. Population about 600.

10. Bellevue is situate on the Missouri, about six miles above the mouth of the Nebraska. Its site is an elevated plateau 80 feet above the river. From the summit the view is almost unlimited, and most beautiful. The settlement has long been a noted fur-trading point, and otherwise its general trade is considerable.

11. Fort Calhoun is situate about 18 miles north of Omaha City. The town derives its name from the old United States Fort Calhoun, established in 1819. The fort and the town which now occupies its site are located on a strip of table-land two miles broad by about eight in length, and about 60 feet above the river. The country around is rolling, with a large amount of second bottom or bench-land, well supplied with timber, and stone is also abundant.

12. Florence (formerly Winter Quarters) is situate on the north point of the same plain on which Omaha City stands, and distant six miles. Florence possesses one of the best steamboat landings on the river, which is here 750 yards wide, and divided into two channels by Rock Island, and hence its eligibility for bridging for a road or railroad.

13. La Platte is situate on the Missouri, 14 miles south of the capital; it is the first townsite north of the Nebraska, and has many advantages indispensable to commercial towns in its landing and the resources of the immediate country. Plattsmouth is the first town south of the Nebraska, and being the most eligible stopping-point for that vast extent of country lying on the borders of the Nebraska, will undoubtedly become a flourishing town. Still farther south, and along the bank of the Missouri, the principal places are Bluff Rock, Kenosha, Nebraska City, Kearney City, and Brownsville. North of the Nebraska, and beyond the towns already spoken of, are De Soto, Tekama, Black Bird, etc. Fontenelle is the seat of Nebraska University, founded in 1858.

14. Nebraska originally formed a part of Louisiana as received from the French. It was erected into a Territory by act of Congress 30th May, 1854, and is now filling up with an enterprising population.

TERRITORY OF KANSAS.



1. KANSAS lies between latitudes 37° and 40° north, and longitudes 94° 40′ and 106° 50′ west; and is bounded on the north by Nebraska, on the east by Missouri, on the south by the Indian Territory and New Mexico, and on the west by the main ridge of the Rocky Mountains which separates it from Utah.

2. This Territory has a length east and west of about 550 miles, and a breadth in the west of 139, and in the east of 208 miles. The area is computed at 114,798 square miles, or an area equal to 3.91 per cent. of that of the whole Union.

3. The surface of this extensive country is that of a slightly inclined plane or gradual slope extending from the base of the Rocky Mountains to the frontier of Missouri. There is no proper mountain within this whole extent except the great range on its western borders, the most elevated culminations of which are Pike's Peak and Long's Peak. There is little to diversify the country as a whole.

4. At the base of Pike's Peak a series of hills or ridge-like elevations (traversing the entire Territory from west to east between the waters of the Kansas and Arkansas, and crossing the Missouri line south of the Osage River) rise into what are called the Ozark Mountains, passing through the State of Missouri to the Mississippi, at Grand Tower. The chain of ridges is thence continued through southern Illinois, and is again cut through by the

Ohio at Grand Chain, and passing between Green and Cumberland rivers, under the name of the Green River Hills, terminates in the Cumberland Mountains. If, therefore, the geological opinion in relation to the Missouri-Mississippi valley having once been a lake or vast inland sea be true, then the chain of ridges or hills above described formed in all probability its southern boundary.

5. The eastern section of Kansas, extending west from the Missouri line about 200 miles, consists of a rolling, undulating country, with a rich and fertile soil, well-watered, and containing a large amount of good timber. The streams flow through handsome, picturesque valleys, generally bordered with timber from a quarter to half a mile in width. The face of the country, the climate, soil, and products correspond generally with those of western Missouri. A large area abounds in coal and gypsum.

6. The middle portion of Kansas is more level, the depressions are shallow, long, and gradual, timber less abundant, the streams not so frequent, nor is the country in general so well adapted to sustain a large population as the more eastern parts of the Territory. This section extends west of the first division probably 200 miles more or less, and includes the



SCENE IN THE GREAT AMERICAN DESERT.

great belt of sterile country reaching from the 47th parallel southward to New Mexico. Good grasses, however, are found in many places, and in time probably much of it will be appropriated to grazing.

7. The section of country lying along the eastern slope of the Rocky Mountains is represented as one of great beauty, and is well supplied with timber, is exceedingly well watered by numerous streams winding in various directions between gently sloping hills and ridges, the rounded and flat summits of which are annually covered with rich and luxuriant grasses. Over these hills, and on the broad plains at their bases, buffalo range by thousands, feeding upon the bunch and buffalo grasses with which they are densely covered. Perhaps no country in the world is better adapted to grazing than is this section, and none certainly has a finer climate or more interesting scenery.

8. The principal river of the Territory is the Kansas or Kaw and its tributaries; and from about the 97th meridian westward the Arkansas flows about a degree north of the southern boundary. The general direction of this latter river is from west to east, near the 38th parallel. Its principal tributaries within Kansas are the Neosho, Verdigris, and Little Arkansas rivers, all large streams. The Kansas River falls into the Missouri in about latitude 39°. It is the most considerable river wholly within the Territory, and with its numerous affluents drains a vast surface. Its length is about 600 miles, and its navigation is open for steamboats to the junction of Republican Fork, if not farther. The Osage, another large stream, drains the country between the Kansas and Arkansas. It has many considerable affluents, which drain a rich and well-timbered section.

9. Kansas as a whole appears to be entitled to the designation of a good agricultural region; it has a fine intermediate climate, and in its cultivation the staples both of the North and South will find congenial localities.

10. A census of the inhabitants was taken in 1855, and the population ascertained to be 8,521, of whom 5,138 were males and 3,383 females, and of the total, 8,104 were Americans and 417 foreigners; and 192 were slaves. In 1857 the population was estimated at 21,208, and in 1858 at about 46,000. This is exclusive of Indians on the several reservations.*

11. The principal towns in Kansas are found chiefly on the lines of the rivers. On the Missouri are Wyandotte City at the confluence of the Kansas; Leavenworth immediately south of the fort of the same name and the largest town in the Territory; Kickapoo 15 miles north of Leavenworth; Atchison at the mouth of Independence Creek, 20 miles farther north; Doniphan 20 miles still higher up, etc. On the Kansas the chief places are—Lawrence, Douglas, Lecompton, Tecumseh, and Topeka on the south bank of the river, and Pottawattomie, Whitfield, Manhattan, Ashland, Pawnee, etc., on the north bank. Fort Riley at the confluence of the Republican Fork with the Kansas, and Fort Atkinson at the confluence of Pawnee Fork with the Arkansas, are United States army stations, as is also Fort Scott on the Marmaton, a tributary of the Osage River. There are also numerous settlements on the Osage and Neosho rivers, as well as in the Big Blue, as Marysville, Ayresville, etc.

* Indian reservations in Kansas, 1858—Delawares 256,000 acres, Wyandottes 24,960 acres, Kickapoos 128,000 acres, Ottoes and Missouris 160,000, Sacs and Foxes 32,000 acres, New York Indians 1,658,880 acres, Kansas 256,000 acres, and Pottawattomies 756,000 acres.

On the Santa Fé trail there are also several, as Elm Grove, Council City, Council Grove, etc., and in the west on the Arkansas, where it is cut by the 103d meridian, Bent's Fort, a trading post. Many of these places have already earned a fame which will carry their names down to the latest posterity: Lawrence, as the stronghold of the anti-slavery party; Lecompton, Topeka, etc., as the sources of rival State constitutions; Atchison and others as the strongholds of border ruffianism. But many also are destined to play an active part in the future, as seats of industrious populations and centers of commerce. Pawnee, Shawnee Mission, Leavenworth, and Lecompton have been successive capitals of the Territory, and in 1857, Minneola, the site of which is still in the wilderness, was chosen for the permanent capital.

12. Kansas, like Nebraska, was originally a part of Louisiana. It was subsequently included in the Indian Territory, and has long been the home of various transported tribes. In 1847 Fort Leavenworth, and more recently forts Scott, Riley, and Atkinson, were established for their regulation and protection.

13. On the 30th May, 1854, the present Territory was organized by act of Congress. The troubles that ensued between the rival slavery and anti-slavery factions constitute its territorial history. To trace these to their sources and in their consequences is no part of the business of this book. On the 30th April, 1858, an act of Congress was passed for the admission of Kansas into the Union; but at an election held on the 2d August of the same year, the votes taken were against (11,300 to 1,788) the project, and hence the Territory still retains the same territorial organization it received by the act of 1854.

INDIAN TERRITORY.



1. This Territory is situated between latitudes 33° 30′ and 37° north, and longitudes 94° 20′ and 100° west; and is bounded on the north by Kansas, on the east by Missouri and Arkansas, on the south by Texas and the Red River, and on the west by Texas, etc. The length of the Territory, east and west, is 320 miles, and its breadth, north and south, about 225 miles. The area is estimated at 71,127 square miles, or an area equal to 2.42 per cent. of that of the whole United States.

2. This Territory is peopled entirely by Indians of various tribes, but of their exact number there is no record; it may be 100,000 more or less. These tribes consist either of indigenous Indians, or such as have been transported from the settled States.

3. The principal tribes and the numerical strength of each now in the Territory are as follows:

The *Cherokees*, in the north and east	about 18,000
The *Creeks*, between 36° 10′ and the Canadian River	" 25,000
The *Seminoles*, between the forks of the Canadian	" 3,000
The *Choctaws* (16,000) and *Chickasaws* (5,000), south of the Canadian	" 21,000
In the northeast, between the Neosho and the east boundary, are the *Quapaws* (300), *Senecas* (1,400), etc.	" 2,000

4. These several nations have had allotted to them separate districts, marked by treaty boundaries; each has its own internal government, and is separate in its relations with the government of the United States. In fact, the several nations are entirely distinct communities. As a general thing their civilization since removal has been progressive; they practice agriculture and many of the arts; and in their social relations have improved under the guidance of the missionaries sent out by the various religious bodies.

5. The Cherokees originally occupied a tract of 54,000 square miles in the highlands of Carolina, Georgia, and Alabama, and in the upper valley of the Tennessee. They were a numerous and powerful race of mountaineers. Their lands were gradually taken by the whites, and in 1836 they sold the last of their ancient domain to the United States and removed to their present home. Their social and industrial progress has been considerable, and even in literature they display a marked talent. They have the printing-press and newspapers. As a nation they have a well-organized government, the nature and powers of which assimilate that of the several States. They were the first among the Indians to adopt written laws, which they did as early as 1824. The legislature, styled the General Council of the Cherokee nation, consists of a committee of two members from each of the eight districts into which the Territory is divided, and a council of three members from each; this legislature meets annually in the council-house at Tahlequah. Members are elected for two years by the free male citizens of each district. The executive is exercised by a principal chief and his assistants, chosen for four years, with the aid of three councilors, elected annually by the legislative body. The judiciary is vested in a supreme court, and circuit and district courts. The Cherokees live chiefly in villages, and their dwellings are mostly comfortable log cabins, and sometimes two-story houses of wood or brick. A great part of their own clothing is home-manufactured, and many families raise their own cotton, out of which the women make substantial cloth. Cultivation by the plow is almost universal, and most families raise enough to supply their own wants.

6. The Creeks or Muscogees, whose original location was Georgia and Alabama, inhabit a fine country north of the Canadian River, and produce a large amount of agricultural supplies. They are industrious, and in general cultivate their lands in common. Their government is almost similar to that of the Cherokees, and is based on a written constitution. The sessions of the council are held annually, and the members, as also the principal chief, are

NEBRASKA AND KANSAS

SCALE OF STATUTE MILES, 69.16 to 1°
0 10 20 40 60 80

50 Geographical or 57.63 Statute Miles to one inch.

3,623,775. of Nature.

Capitals ✱ OMAHA County Towns ●

MINNESOTA

3,623,775. of Nature.

SCALE OF STATUTE MILES, 69.16 to 1°
0 10 20 40 60 80

50 Geographical or 57.63 Statute Miles to one inch.

VICINITY, OF THE FALLS OF St. ANTHONY.

Entered according to Act of Congress, in the Year 1856, by J. H. Colton & Co. in the Clerks Office of the District Court of the United States, for the Southern District of New York.

7.247.550. of Nature

OREGON, WASHINGTON, CALIFORNIA, UTAH & NEW MEXICO.

SCALE OF STATUTE MILES.

0 20 40 80 120 160

100 Geographical or 115.26 Statute Miles to one inch.

EXPLANATION.

Capitals ⊙ OLYMPIA

Important Places ○ Portland

Rail Roads

Entered according to Act of Congress in the Year 1858 by J. H. Colton & Co. in the Clerks Office of the District Court of the United States for the Southern District of New York.

elected by the free citizens. They associate in villages, and have good houses; and having been supplied with master mechanics by the United States, are now advancing rapidly their material welfare. The principal settlements are on the Arkansas and its tributaries. The SEMINOLES are considered as a constituent part of the Creek nation, which they assimilate in origin and language. Although improving, they are averse to labor, and have, perhaps, made less progress than any of the other immigrant tribes.

7. The CHOCTAWS and CHICKASAWS, which were kindred nations on the east side of the Mississippi, are confederates in their new homes, occupying the whole Territory south of the Canadian. They are governed by a written constitution. The country is divided into four districts, one of which (the fourth) is occupied by the Chickasaws, each district electing its own chief for four years. The national council consists of 40 members, elected by the qualified citizens of the districts in equal numbers, and meets annually at the council-house on the Kiamishi, an affluent of Red River. The chiefs have a qualified veto on all laws passed by the council. The judiciary is regularly organized, and trial is by jury. Appeal lies to a supreme court. The national force consists of all male adults, with 32 captains in each district, and a general-in-chief. On several occasions the Choctaws have volunteered into the United States service. They are industrious and frugal; are extensively engaged in agriculture, and have good houses and well-inclosed fields. In the south they raise large quantities of cotton, and on the Red River have cotton gins and several mills. Their stock of cattle, horses, sheep, and swine is abundant. In various parts spinning and weaving are carried on, and also many of the minor manufactures and mechanic arts. The schools of the Choctaws are among the best institutions of the Territory, and are liberally supported from the national treasury.

8. The QUAPAWS and SENECAS, in the northeast, are the remnants of powerful nations; and although now almost extinct are among the most civilized of the aboriginal races.

9. The Indian Territory was originally a part of Louisiana. It is not organized as other Territories of the United States; but certain portions of it have been granted from time to time to the nations now inhabiting it. The name until lately was applied to all the territory west of the settled States occupied by the immigrant Indians; but by the act of Congress, 30th May, 1854, the great body of the Indian lands was merged within Kansas and Nebraska.

UNORGANIZED TERRITORY.

A SMALL parallelogramic strip of land extending from latitudes 36° 30′ to 37° north, and from longitudes 100° to 103° west. Area 5,878 square miles. It formerly belonged to Texas.

TERRITORY OF NEW MEXICO.



1. NEW MEXICO is situated between latitudes 31° 32′ and 38° north, and longitudes 103° and 117° west; and is bounded on the north by Utah and Kansas, on the east by Texas, Kansas, etc., on the south by Texas and the Territory of Arizona, and on the west by California.

2. The greatest length of New Mexico is east and west, being 700 miles; the breadth of the Territory north and south varies from 452 miles in the east to less than 300 miles in the west. The area is estimated at 207,007 square miles, or 7.05 per cent. of that of the whole United States.

3. That portion of New Mexico westward of the Sierra Madre can only be considered as a temporary appendage to the Territory. It is bounded south by the Gila, and extends north to the 37th parallel, and is watered chiefly by the Colorado and its affluents, and also the numerous tributaries of the river bounding it on the south. In the northeast it is occupied by considerable mountains and mountain valleys, and the whole eastern line is mountainous and rugged. The interior forms a varied country, well wooded, and with much fine agricultural land; and the country bordering on the Gila, which is hilly and broken, abounds in mines of copper, gold, silver, etc. The whole is comprised in the county of Rio Ariba, and covers about half the total area of the Territory. It is inhabited almost solely by Indian tribes—the Navajoes in the northeast, the Apaches in the east and southeast, the Pimas in the west and southwest, and the Pah-Utahs in the north and northwest.

4. New Mexico proper, or that portion of the country east of the Sierra Madre, in its general aspect is mountainous, with a large longitudinal valley running from north to south, and through which flows the Rio Grande. This valley is generally about 20 miles wide, and bordered on the east and west by mountain chains, continuations of the Rocky Mountains. The height of these mountains south of Santa Fé may upon an average be from 6,000 to 8,000 feet, while near Santa Fé, and in the more northern regions, some snow-capped peaks are seen that may rise from 10,000 to 12,000 feet above the sea. These mountains are principally composed of igneous rocks. On the higher mountains excellent pine timber grows; on the lower, cedars and sometimes oaks, and in the central valley mesquito, etc.

5. The soil of the valley of New Mexico is generally sandy and looks poor, but by irrigation it produces abundant crops. The most fertile part of the valley begins below Santa Fé along the river, and is called the Rio Abajo, or country down the river. It is not uncommon here to raise two crops within the year. With regard to climate, considerable differences are experienced in accordance with elevation and shelter; but on the whole it is temperate, constant, and salubrious.

6. In 1850 New Mexico contained 61,547 inhabitants, comprised in 13,502 families, and occupying 13,453 dwellings. This population is equal to 0.3 to the square mile, and 0.27 per cent. of the total of the United States. Its distribution was as follows:

Counties.	Population.	County Seats.
Bernalillo	7,751	Albuquerque.
Rio Ariba*	10,668	Cuchillo.
Santa Ana	4,645	Jemez.
Santa Fé	7,713	SANTA FÉ.
San Miguel	7,074	San Miguel.
Taos	9,507	Taos.
Valencia	14,189	Valencia.

—and of the total, 61,525 (99.96 per cent.) were white persons—31,725 males and 29,800 females, and 22 (0.04 per cent.) were free colored persons—17 males and 5 females; and in reference to nationality, 59,261 (96.29 per cent.) were Americans (of whom 58,421 were born in New Mexico), 2,063 (3.35 per cent) were foreigners, and 223 of origin not ascertained.

7. Of 17,478 males over 15 years of age whose occupations were ascertained, 1,054 were engaged in commerce, trade, manufactures, mining, and the mechanic arts, 7,956 in agriculture, 6,209 in labor not agricultural, 655 in the army, 2 in navigation, 45 in law, medicine, and divinity, 58 in other pursuits requiring education, 206 in government civil service, 1,292 in domestic service, and one in some other (unnamed) pursuit.

8. Agriculture is the distinguishing industry of New Mexico; and cattle raising is carried on extensively under the old Spanish system of estancias. Mining at the present day is essentially a subsidiary occupation, nor are there any manufactures properly so called. Commerce is necessarily active, and a large amount of business is carried on over the plains between St. Louis and Santa Fé.

9. The mineral resources of the Territory are abundant. Gold, silver, copper, etc., are found in the mountains; and in the valley of the Rio Grande, for 120 miles above and 100 miles below Santa Fé, the gold placers have long been worked, and the poorer classes occupy much of their time in washing out gold dust, which is largely deposited in the mountain streams, and some mines are also worked in the neighborhood of Santa Fé. No others of consequence indeed are now worked.

10. The number of farms under cultivation on the 1st June, 1850, was 3,750, containing 166,201 acres improved and 124,370 acres unimproved lands, together valued at $1,653,922; and the value of farming implements and machinery was $77,960.

11. The livestock at the same date consisted of—horses 5,079, asses and mules 8,654, milch cows 10,635, working oxen 12,257, other cattle 10,085, sheep 377,271, and swine 7,314—in all valued at $1,494,629. The value of animals slaughtered in the year preceding was $82,125, and the products of animals consisted of—wool 32,901 pounds, butter 111 pounds, and cheese 5,848 pounds.

12. The crops amounted to—wheat 196,516, oats 5, Indian corn 365,411, barley 5, buckwheat 100 bushels, potatoes 3, and beans and peas 15,688 bushels. Otherwise there were produced—beeswax and honey 2 pounds, molasses 4,236 gallons, tobacco 8,467 pounds, and wine 2,363 gallons, and the value of orchard products was $1,271. Home-made manufactures were valued at $6,033.

13. The capital invested in manufactures, mechanic arts, etc., in 1850, amounted to $68,300, the value of raw material used to $110,220, and the products of the year amounted to $249,010. The whole number of establishments under this head was 23, employing 81 hands; of these seven were distilleries—capital $7,300. The principal manufactures consist of blankets and cloaks, called serapes.

14. New Mexico has no direct foreign commerce. A large trade, however, is carried on with the Western States, and conducted by means of caravans. In this manner the Territory obtains its supply of manufactured goods, and in return exports specie and Indian merchandise. The route passes direct through the Territory of Kansas, and in one portion is so barren as to have received the significant appellation of Jornado del Muerte.

15. Santa Fé, the capital, is situated about 20 miles east of the Rio Grande, on an arid



SANTA FÉ, FROM THE GREAT MISSOURI TRAIL.

plain surrounded by mountains. Latitude 35° 41′ 6″, and longitude 106° 1′ 22″—elevation 7,047 feet. It is an old town, having been founded in 1581, and consists of narrow, irregular

* Since divided into Rio Ariba and Socorro counties.

streets, with houses of a single story built of adobes—square in form, and having a central area. It contains two Roman Catholic churches, and on the 21st May, 1855, was laid the corner-stone of the first Protestant church in New Mexico. The governor's house is the only other building of note. The inhabitants are still nearly all of Spanish and Indian descent, but there are a few Americans, chiefly such as are connected with the overland trade which centers at this city. The climate is serene and little variable. Population 4,846.

16. There are several other towns and villages in the Territory, but none of importance. Albuquerque, on the Rio Grande, about 76 miles south of the capital; Socorro, on the west bank of the river, 105 miles south of Santa Fé; and Taos, on a small tributary of the same river, about 65 miles north-by-east, are the most noted, and have some trade.

17. New Mexico became known to the Spaniards about the year 1581, and formal possession was taken of the country in 1598. Christianity and slavery were early and simultaneously introduced among the Indians, and conversion and personal service enforced by the sword. The converted Indians were made to live in villages, and were distinguished from the roving bands by the title of "Pueblos." Many towns, of which only the ruins now remain, were established at this time. The mines were successfully worked, and the occupation of the country seemed to be secured, when, quite unexpectedly, in 1680, a general insurrection of the Indian tribes broke out against the Spanish yoke. The Spaniards were either massacred or driven southward, where they founded El Paso del Norte. The country was not recovered for ten or twelve years. Several insurrections have since occurred, but none so universal or disastrous as this one.

18. After the revolution that overthrew the Spanish power, New Mexico followed the fate of the vice-royalty. Its history, however, previous to the invasion by the Americans, has little to arrest attention. It is a continuous record of barbarism and tyranny. On the 8th September, 1846, Santa Fé was captured by the Americans under General Kearney, and soon after several of the river towns were visited on his route to California. A civil government was now established. On the 19th January, 1847, an insurrection broke out against the Americans, and in several pueblos many of them were murdered, among whom was Mr. Bent, the governor. Taos, Arroyo-Hondo, and Rio Colorado were the chief scenes of strife. The battles of La Canada and El Embudo also occurred in this month, and in February the battle of Taos, in all of which the Mexicans were completely vanquished. Some few skirmishes occurred after these, but none of importance, and from this period the United States authorities exercised exclusive power. The treaty of Guadalupe Hidalgo assigned New Mexico to the Union, and on the 9th September, 1850, the country within its present limits was erected into a territorial government.

19. By act of Congress passed 4th August, 1854, the territory south of the Gila, acquired by the treaty between the United States and Mexico, dated 30th December, 1853, was annexed to and became a part of New Mexico. Its area is about 27,500 square miles, and hence the total area of New Mexico is now 234,507 square miles. This Territory is separately described.

TERRITORY OF ARIZONA.



1. Arizona is situated between latitudes 31° 20′ and 33° 20′ north, and longitudes 106° 50′ and 114° 40′ west; and is bounded on the north by New Mexico, on the east by New Mexico and Texas, on the south by the northern States of Mexico, and on the west by Lower California. Its length east and west is about 475 miles, and its width varies from a few miles in the west to 130 or 140 miles in its widest parts. The area is computed at 27,500 square miles.

2. This Territory, stretching from the Rio Grande to the Colorado, and lying immediately south of the Gila, is full of mountains and valleys rapidly succeeding each other from east to west, and is for the most part a very rugged country. It is, however, rich in gold and silver, and its mines, formerly worked on a large scale, were the most profitable in Spanish America; but on account of Indian disturbances, these have been almost entirely abandoned.

3. It is difficult to state with any degree of exactness the number of white persons at present in the Territory; some accounts give it as low as 2,000 or 3,000, while others as high as 8,000 or 10,000. These live in villages, the principal of which is Tucson, in the valley of the Rio San Xavier, and in the same valley southward are the villages of San Xavier and Tubac. The finest portion of the Territory is the Mesilla valley in the east, but it is inhabited solely by Indians. The inhabitants have abundance of livestock, which constitutes their chief wealth.

4. Arizona formerly belonged to Mexico, and formed a part of the States of Sonora and Chihuahua. The Territory was acquired for the United States by the treaty with Mexico dated 30th December, 1853; and by an act of Congress of 4th August, 1854, was annexed to and became a part of New Mexico. It is frequently termed the "Gadsden Purchase," in honor of the American negotiator, and also the "Mesilla Territory," from the great eastern valley of that name. As a possession of the United States, its distance and isolation will be the greatest barriers to its speedy development; but the reported richness of its mines, and the fact that it affords an eligible route for a Great Pacific and Atlantic Railroad, favor a contrary conclusion. Already the Sonora Mining Company have commenced operating within the Territory, and have invited immigration; and the great mail route from St. Louis and Memphis to San Francisco *via* El Paso, Tucson, and Fort Yuma (inaugurated in 1858), traverses it, and affords facilities not hitherto possessed for its early settlement by Americans.

5. In view of these facts, and others equally cogent, it is now considered desirable to establish over the Territory a temporary government, and it is also proposed to make the 34th parallel its northern border. For this purpose several applications have been made to Congress, and it is probable that a result favorable to the proposal will be attained in the next session of the national legislature.

TERRITORY OF UTAH.



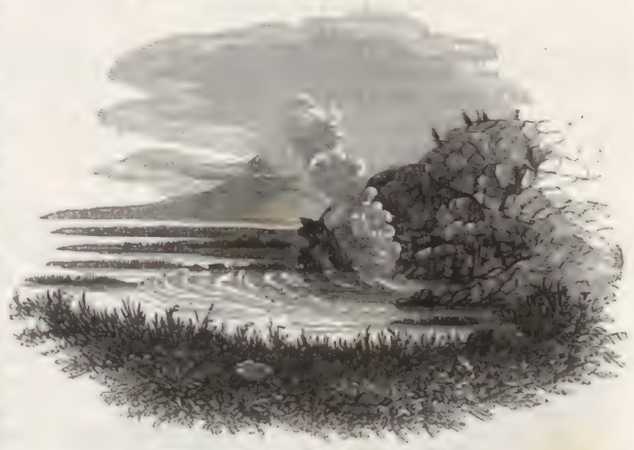
UTAH INDIAN LODGE.

1. Utah is situated between latitudes 37° and 42° north, and longitudes 106° and 120° west; and is bounded on the north by Oregon and Washington, on the east by the Rocky Mountains and New Mexico, on the south by New Mexico, and on the west by California.

2. The extent of this Territory, east and west, is from 600 to 750 miles, and its breadth, north and south, about 345 miles. The area is computed at 269,170 square miles, or an area equal to 9.17 per cent. of that of the whole Union.

3. The Wahsatch Mountains divide the Territory into two unequal portions: a hilly country on the east, drained by the Colorado and its tributaries, and a high and generally barren table-land on the west, the drainage of which has no outlet to the sea. The western portion, or, as it is termed, the Great Basin, is bounded on all sides by mountains, is about 500 miles long and 265 miles wide, and has an absolute elevation of between 4,500 and 5,000 feet. Detached ranges traverse it in several parts, and in their highest culminations rise to between 3,000 and 5,000 feet above the general level. The Wahsatch Mountains in some parts attain the snow-line. The country east of these to the Rocky Mountains is even a more sterile region than the western section, and is wholly uninhabitable except in its valleys.

4. In its hydrographical arrangement the country presents several independent basins, and each of these loses its waters in lakes or sinks, none west of the Wahsatch Mountains reaching the ocean. Of these basins the most extensive is that of the Great Salt Lake. This is about 120 miles long, north and south, and from 30 to 40 miles broad, the greater part of its northern extremity being occupied by the great lake itself. The surface is entirely level, but toward the mountains has a gentle rise. The soil is sandy, and frequently incrusted with saline efflorescence, and the waters of the lake are super-saturated with salt.



HOT SPRINGS NEAR GREAT SALT LAKE CITY.

5. The other basins known to exist within the rim of the Great Basin are those of Bear River, Yuab, Utah, Sevier, Sand Pitch, Humboldt, Carson, etc.; each and all of which are more or less characterized by the same peculiarities as that of the Great Salt Lake.

6. The only timber growths are found on the immediate borders of the streams and at the bases of the hills; and cultivation is impossible beyond the reach of irrigation.

7. The largest of the rivers in all this region is Humboldt's River, which rises in the Humboldt range of monntains, and after a course of 300 miles discharges into the lake of the same name. Nicollet River has nearly as long a course, and empties into Nicollet Lake. Bear River comes from Oregon, and is the principal tributary of the Great Salt Lake. The Colorado is formed by the union of Green and Grand rivers. These streams and their affluents drain the entire eastern portion of the Territory, and their valleys form the only habitable sections. Their sources are in the same vicinities which give rise to the Nebraska, Arkansas, and Del Norte.

8. The climate of course depends much on the elevation of the locality, but generally the climate of Utah is milder than that of the Mississippi valley or the Atlantic slope. In the valleys the weather is extremely moderate, and when irrigation is practicable, agriculture is liberally rewarded. The open plains are sterile, perhaps more from the lack of water than from material defect in the soils; in several localities they are grassless, and in others are light and sandy. The vegetation is not dissimilar to that of the same parallels east of the mountains; but does not exist except where moisture is permanent. On the whole, less than one third of the surface is arable.

9. In 1850 the population of the Territory was 11,380 (in 3,325 families), being 0.04 to the square mile, or 0.05 per cent. of the total population of the United States. It was distributed as follows:

Counties.*	Population.	County Seats.	Counties.	Population.	County Seats.	Counties.	Population.	County Seats.
Davis	1,134	Farmington.	Salt Lake	6,157	S. Lake City.	Utah	2,026	Provo.
Iron	360	Cedar.	San Pete	365	Manti.	Weber	1,186	Ogden.
			Tooele	152	Tooele.			

—and besides this there were in the Territory about 12,000 Indians.

10. Of the civilized population 11,330 (99.56 per cent.) were white persons—6,020 males

* Counties erected since 1850—Desert, Green River, Millard (in which is Fillmore, the new capital), Washington, and Yuab.

and 5,310 females, 24 were free persons of color—14 males and 10 females, and 26 were slaves—12 males and 14 females: and of the free population 9,355 (82.40 per cent.) were Americans (1,381 born in Utah), 1,990 (17.53 per cent.) foreigners, and 9 whose origin was not ascertained.

11. The occupations of 3,135 males over 15 years of age were as follows—828 were engaged in commerce, trade, manufactures, mechanic arts, and mining, 1,581 in agriculture, 622 in labor not agricultural, 18 in navigation, 26 in law, medicine, and divinity, 48 in other pursuits requiring education, and 12 in government civil service.

12. On the 6th October, 1853, the population was ascertained by census to be 18,206, and in 1855 was 38,716. The increase has been chiefly from European immigration.

13. All branches of industry have been rapidly developed in this Territory. Mines have been opened, manufactures initiated, and the mechanic arts brought into requisition.

14. The principal mining operations are carried on in Iron County, where both iron and coal are mined. This industry has been called into existence since 1850, and though so new, is still a very flourishing branch, and must eventually become a leading occupation.

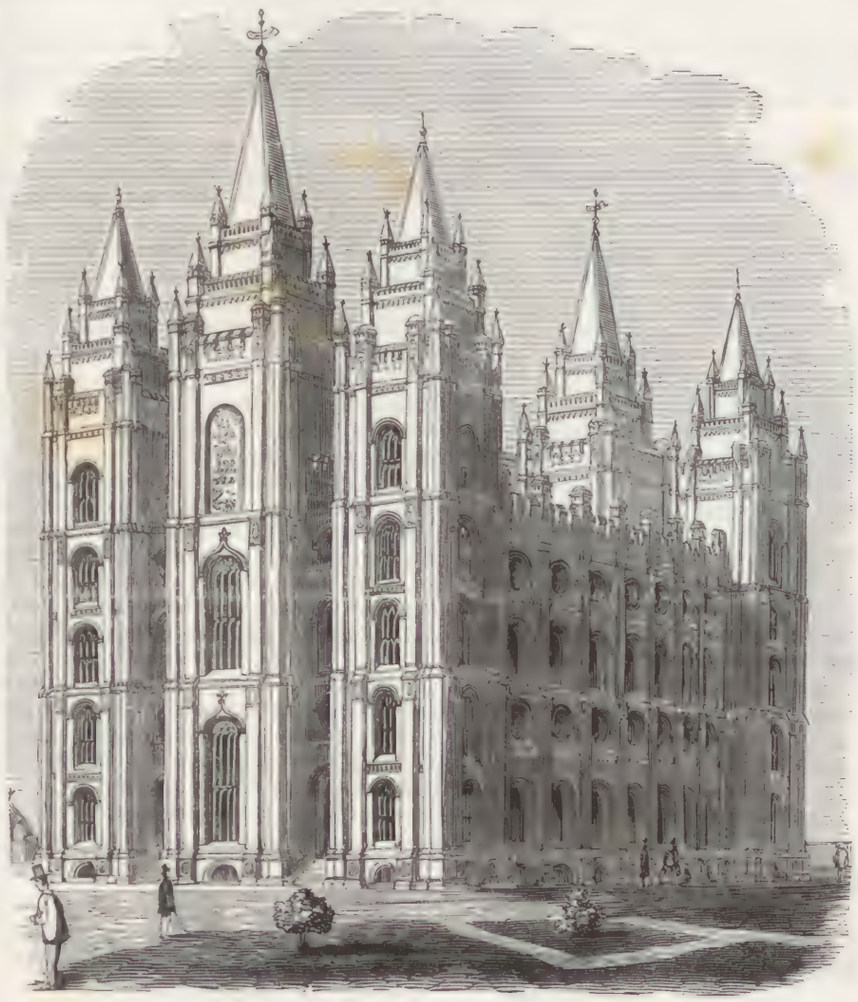
15. In 1850 the number of farms under cultivation was 926, and the quantity of land taken up by settlers was 46,849 acres, of which 16,333 acres were improved, and the value of farms was estimated at $311,799. The value of farming implements and machinery was $84,288.

16. The livestock consisted of—horses, 2,429; asses and mules, 325; milch cows, 4,861; working oxen, 5,266; other cattle, 2,489; sheep, 3,262; and swine, 914—in all valued at $546,968; and the products of animals were—wool, 9,222 pounds; cheese, 30,998 pounds; and butter, 83,309 pounds. The value of animals slaughtered in the census year was $67,985.

17. The crops consisted of—wheat 107,702, rye 210, oats 10,900, Indian corn 9,899, barley 1,799, and buckwheat 332 bushels; potatoes—Irish 43,968, and sweet 60 bushels; hay, 4,805 tons; peas and beans, 289 bushels; flax, 550 pounds; tobacco, 70 pounds; hops, 50 pounds, etc.; and the value of market-garden products was $23,868. Home-made manufactures were valued at $1,392.

18. The capital invested in manufactures and the mechanic arts in 1850 amounted to $44,400; the raw material consumed in the year preceding was valued at $337,381; hands employed, 51; and the products of the year amounted to $291,220.

19. The natural port of Utah on the Pacific is San Diego, and on the Gulf of Mexico, New Orleans. The mountains in both directions, however, limit its communication and nullify any expectation of an appreciable commercial intercourse with foreign countries. Immigrants from foreign countries have usually come by way of New Orleans.



MORMON TEMPLE, GREAT SALT LAKE CITY.

20. Utah lies on the great highway between the Atlantic and Pacific, and through this Territory a line of railroad must eventually be carried. The route proposed is that through the South Pass of the Rocky Mountains and thence by the Great Salt Lake to one of the passes of the Sierra Nevada. The practicability of such a line has been demonstrated; but the difficulties of the surface and the enormous cost involved must indefinitely postpone the accomplishment of the work. Internally, Utah has made considerable progress in the opening of roads.

21. The census of 1850 returns nine churches, capable of accommodating 4,200 persons, and valued at $51,000. This is the Mormon Church or *Church of Jesus Christ of the Latter Day Saints*—a peculiar organization, and embracing within its communion the great body of the people. The school has not been neglected, and already the basis of a regular system of education has been established; and a university has been liberally endowed by the general government. The census of 1850 returned 13 public schools, 13 academies and private schools, and one college; and these were attended by 2,035 scholars. Of the total adult population only 154 were returned as unable to read and write.

22. The "City of the Great Salt Lake" is the metropolis of Utah, and was formerly the capital. It is situate on the east bank of the strait connecting lakes Utah and Great Salt,



GREAT SALT LAKE CITY.

about 20 miles south from the latter, and 4,300 feet above the sea-level. It was founded July, 1847, by the first Mormon immigrants, and has since been laid out on a magnificent plan. It contains the Great Temple, etc., and contained in 1855 about 10,000 inhabitants.

23. Fillmore, the present capital, is situate on a branch of Nicollet River, about 145 miles south, and contains a handsome government-house of red granite.

24. The other settlements are—Manti, on another branch of the Nicollet, 43 miles north-east; Parowan and Cedar City, about 100 miles south-southwest of Fillmore; Nephi, Provo, Lehi, Farmington, Ogden, Brownsville, etc., all in the neighborhood of the great lake; and there are minor settlements in most of the isolated valleys.

25. The Territory now called Utah formerly constituted a portion of the Mexican province of California Alta, and as such passed into the possession of the United States by the treaty of Guadalupe Hidalgo, 2d February, 1848. Previous to the Mexican war, few white men, except those engaged in scientific explorations, had entered the country. About the period that the war had broken out, the Mormons were driven from their city of Nauvoo, in Illinois, by mob violence, and shortly afterward emigrated to the borders of the Great Salt Lake. Their settlements became prosperous and populous, and within two years after the first pioneers had entered the country their numbers had increased to about five thousand.

26. After the ratification of peace, they found themselves without a government and without protection for person or property. To remedy this anomalous condition of the body politic, a temporary government was organized under the style of "The State of Deseret," and under its sanction the usual government officials were elected. But the ultimate destiny of the country belonged to Congress, and that body, during the session of 1849–50, remanded the State back to a territorial condition under its present title.

27. For several years the officers of the territorial government were appointed from among the residents, and so far all was well. But subsequently the general government thought fit to change this policy and set over the people officials of whom they knew nothing, and whose conduct would appear to have been at least inimicable and rash. The consequence was general dissatisfaction and finally rebellion. In 1857–8, however, a military expedition was sent against the inhabitants, which "conquered a peace" without bloodshed, and compelled the people to submit to the laws of the United States.

28. This Territory it is now proposed to divide into two governments. The Territory of Nevada, as proposed, would include all those portions of Utah west of a line drawn on the 114th meridian. The organization of this new Territory will probably be settled by the Congress to assemble in December, 1858.

STATE OF CALIFORNIA.



1. California is situated between latitudes 32° 20′ and 42° north, and longitudes 114° 20′ and 124° 25′ west; and is bounded on the north by Oregon, on the east by Utah and New Mexico, on the south by Lower California, and on the west by the Pacific Ocean.

2. Measured diagonally, northwest and southeast, the length of this State is about 800 miles. The width east and west is greatest on the 35th parallel, and least on the latitude of San Francisco; the mean breadth may be stated at 230 miles. The area is computed at 155,980 square miles, being 5.32 per cent. of the total of the United States.

3. The characteristic features of California are determined by the two great ranges—the Sierra Nevada and the Coast Range—which traverse it northwest and southeast. Between these is the splendid valley of the Sacramento and San Joaquin; to the east wide, sandy plains, and to the west a comparatively narrowed slope to the Pacific, on the south watered by the Salinas and numerous smaller streams, and on the north by Russian, Eel, and Klamath rivers.

4. The coast, which has a length of about 1,200 miles, is generally rugged and precipitous. Beginning at the south, it makes a bold semicircular sweep to the northwest as far as Point Conception. Off this part of the coast there are numerous small islands and rocks, and the line is indented by several bays and harbors. The only valuable one of these is San Diego Bay, in latitude 32° 41′ north. The bay itself is spacious, and forms an excellent harbor. The harbors of San Pedro and Santa Barbara are also available for craft of moderate tonnage.

5. From Point Conception the coast trends north-northwest to Point Pinos, the south extremity of Monterey Bay, one of the safest and most capacious harbors on this coast. From Monterey Bay it continues as before for about 70 miles, in a direct line, to the almost unrivaled bay of San Francisco, the entrance to which is only about a mile wide. Beyond this strait the bay opens out for more than 30 miles, both on the right and left; its entire length is 70 miles, with an average breath of 8 miles and a coast-line of 275 miles. By projections of the coast several small inner bays are formed, the principal being those of San Pablo and Suisun. This harbor is the natural outlet of the valley of the Sacramento and San Joaquin.

6. Beyond San Francisco Bay is Port Bodega, where was formerly a Russian station. Thence the coast continues in the same northwest direction, but less broken than before, to Point Delgado, beyond which is formed the bold headland of Cape Mendocino in latitude 40° 21′ north. This forms the southern point of Trinidad Bay, in which the coast of California terminates, on the 42d parallel. Between Cape Mendocino and the north boundary the only points of interest are Humboldt's, Trinidad, and Klamath harbors.

7. The mountain masses which constitute the peninsula of California Baja extend undivided into the State of California as far north as the snow-capped peak of San Bernardino, 34° north latitude, where they divide into the two great ranges already mentioned. These ranges both run in a northwestern and generally parallel direction.

8. The eastern range, called the Sierra Nevada, is by far the loftiest, many of its peaks being above the snow-line—Saddle Peak 7,200 feet high, the Table Mountain 8,000, the Butte 9,000, Mt. St. Joseph about 10,000, and Mt. Shasta, at the northern extremity of the range (41° 34′ north latitude), 14,390 feet above the sea. This range is opened by few, and those very elevated passes. North of 39° its slopes, especially on the west side, have vast forests of pine, and, lower down, oak.

9. The Coast Range runs at a short distance only from the ocean, to which it is generally parallel. Its average height varies from 2,000 to 3,000 feet—its highest peak, Monte Diavolo, at the head of San Francisco Bay, is 3,770 feet above the sea. This range is broken near Monte Diavolo by the united Sacramento and San Joaquin rivers; decreases in altitude toward the north, and finally reunites with the Sierra Nevada near Mt. Shasta. From this point northward the country is wholly mountainous, the Sierra Nevada with its offsets and connecting ranges occupying the entire breadth of northern California, and extending northward till it is lost in the Cascade Range of Oregon.

10. Between the Sierra Nevada and the great valley is a line of lower mountains; and both from the Sierra Nevada and the Coast Range lesser lateral ranges and offsets diverge, forming numerous narrow valleys and ravines.

11. The basin included between the two great ranges, though really one geographical formation, bears the name of the Sacramento and San Joaquin valley, from the rivers which rise respectively at its northern and southern extremities. This fine valley is upward of 500 miles long and 50 miles wide, and has evidently at some remote period been the bed of a vast lake, the waters of which have been released from their mountain prison by some convulsion of nature, having broken through the Coast Range at San Francisco Bay.

12. The surface of this valley is much diversified, being broken into rugged hills at its northern end, and in many places along its eastern side by well-wooded spurs from the Sierra. Toward the south, near the Tulare lakes, and along the banks of the two great rivers, it is low and level, rising gently into undulating slopes, which break into low hills as they approach the mountains. The richest and most picturesque part of the valley is that central portion of it which incloses San Francisco Bay and the delta.

13. The district west of the Coast Range—almost the only part of California inhabited previous to the American occupation—is full of narrow fertile valleys. Along a part of the coast the mountains come close down to the sea; but along a still larger portion there extends a tract of low sand-hills, which in some places reach many miles inland. The country east of the Sierra Nevada is mostly level, and much of it sandy and barren. Its character, however, is little known; but along the Colorado it is supposed to have a rich alluvial soil.

14. The two most important rivers are the Sacramento and San Joaquin. The Sacramento rises at the northern extremity of the great valley, its head streams issuing chiefly from Mt. Shasta and some of its spurs. Its affluents are many from the Sierra Nevada, and though mostly mere mountain torrents, some of them, as the Feather, the American, the Cosumes, and San Juan rivers, are of some importance. Near Monte Diavolo the Sacramento receives the San Joaquin, and the united river turns abruptly to the west, and soon after expanding opens into San Francisco Bay. The San Joaquin issues from the Tulare lakes. Its course is north and northwest, and, like the Sacramento, it receives numerous tributaries from the Sierra. During the wet seasons these rivers are subject to great floods, and the San Joaquin frequently floods much of the low land on its borders. The Sacramento is navigable at all seasons to the city of the same name, 150 miles from its mouth—the San Joaquin, above Stockton, has sufficient water for only very small craft.

15. The Colorado, the lower part of which drains the southeastern portion of the State, and which falls into the Rio Gila, is navigable for vessels drawing six or seven feet of water.

16. Along the coast are numerous rivers which rise in the Coast Range and after a short course fall into the Pacific. Many of them are of considerable value for irrigation, and may at some future period be rendered available for mechanical purposes; but none are navigable.

17. The Sierra Nevada with its connected ranges has for its substratum schistose and talcose slate; and, superimposed, are strata of quartziferous rocks. In many places a fine white quartz granite occurs. In the Coast Range quartz also abounds. Sandstone is found throughout the lower ranges of hills.

18. What is known as the Gold Region extends for some 500 miles in length, with a breadth of 40 or 50 miles, following the range of the Sierra Nevada. It occupies the lower mountains of that range lying between the central mountains and the valley of the Sacramento and San Joaquin. These mountains average from 4,000 to 5,000 feet in height; and the gold is generally found either in the gullies and ravines or in the sandy beds of the streams on their way toward the two great rivers. Wherever the gold has been found *in situ* it has been in connection with quartz. Gold has also been found in the loftier central heights of the Sierra, and on its eastern side; and also in the Coast Range and the streams flowing from its western slope.

19. Nor is gold the only important metal which abounds—quicksilver and incidentally silver are also abundant, and copper, iron, etc., have been discovered. Bituminous coal is abundant near San Francisco and San Diego, and probably in other places.

20. California has a dry and wet season, corresponding nearly with the summer and winter seasons of the Atlantic. But there are considerable variations, both in the temperature and in the amount of moisture. North of latitude 39° the air during the dry season is much less parched, and rains occur earlier than in the southern districts. Along the coasts the climate is much more temperate than in the great valley, while east of the Sierra the atmosphere is excessively hot and dry. Heavy fogs visit the coast in summer, and a cold wind sets in regularly toward noon from the sea and continues to blow with increasing force and keenness till late at night. Some few miles inland the cold is modified, and the temperature becomes equable and agreeable. Throughout the great valley the mid-day heat is so great as to render labor in the open air very unpleasant and oftentimes impracticable. The soil along the valley is generally extremely rich, and needs only judicious irrigation to make it produce almost every variety of crop.

21. Tobacco, rice, maize, and most of the plants, except cotton, which grow in the warmer parts of the Union, flourish in the sheltered lateral valleys, while in the main valley itself most of the cereals produce extraordinary crops, and grapes, peaches, etc., thrive admirably. The grasses are luxurious and nutritious, affording excellent pasturage. North of 39° are extensive forests of pine and oak. The valleys along the coast produce all the cereals and all or nearly all of the fruits and vegetables of the temperate zone.

22. The native animals are generally of the same species as those inhabiting the eastern section of the States, and many are valuable for their skins, as bears, badgers, ermines, weasels, mink, marten, wolves, foxes, etc. Deer of various kinds are plentiful, and mountain sheep abound. The buffalo is only occasionally met with. Of birds, both land and aquatic, there is abundance. The great Californian vulture is inferior only to the South American condor in size; and eagles, vultures, bustards, etc., are more or less common. The bays and inlets of the coast swarm with water-fowl, and among these are frequently seen the pelican and the albatross. The waters teem with fish. Salmon, salmon-trout, sturgeons, mackerel, pilchards, etc., are found in the rivers or estuaries, and also the halibut, skate, turbot, bonito, etc. Shell-fish abound. But though fish is so abundant, the fisheries at present form no part of the industrial economy of the State.

23. According to the census of 1850 California contained 92,597 inhabitants, being 0.59 to the square mile, and 0.4 per cent. of the total population of the Union. This census was very incomplete, and a new one was ordered to be taken in 1852, which gave a total of 255,122 inhabitants, or 1.63 to the square mile. Of the population in the latter year, 171,841 were whites, 2,206 colored persons, 31,266 Indians, and 49,809 Chinese, etc.

24. The population of the counties as returned at the two periods was as follows:

Counties.	Population. 1850.	Population. 1852.	County Seats.
Butte	3,574	6,429	Hamilton.
Calaveras	16,884	20,183	Moquelumne Hill.
Colusi	115	537	Munroeville.
Contra-Costa	*	2,786	Martinez.
El Dorado	20,057	40,000	Colloma.
Klamath	—	467	Crescent City.
Los Angeles	3,530	8,329	Los Angeles.
Marin	323	1,035	San Rafael.
Mariposa	4,379	7,405	Mariposa.
Mendocino	65	384	Meigsville.
Monterey	1,872	2,601	Monterey City.
Napa	405	2,116	Napa City.
Nevada	—	20,583	Nevada City.
Placer	—	10,783	Auburn.
Sacramento	9,087	12,418	Sacramento City.
Santa Barbara	1,185	1,525	Santa Barbara.
Santa Clara	*	6,764	San José.
Santa Cruz	643	1,219	Santa Cruz.
San Diego	798	2,817	San Diego.
San Francisco	*	36,154	San Francisco City.
San Joaquin	3,647	5,029	Stockton.
San Luis Obispo	336	502	San Louis Obispo.
Shasta	378	3,833	Shasta City.
Sierra	—	3,741	Downieville.
Siskiyou	—	2,020	Yreka.
Solano	580	2,835	Benicia.
Sonoma	560	2,208	Sonoma.
Sutter	3,444	1,200	Nicolaus.
Trinity	1,635	1,782	Weaverville.
Tulare	—	8,582	Woodville.
Tuolumne	8,351	17,657	Sonora.
Yolo and Yuba	1,086 / 9,673	1,440 / 19,758	Frémont. / Marysville.

—since 1852 several new counties have been erected, and the population has been greatly

* Returns destroyed by fire.

CALIFORNIA

3.623.775, of Nature

SCALE OF STATUTE MILES.

0 10 20 40 60 80 100

50 Geographical or 57.63 Statute Miles, to one inch.

EXPLANATION.

State Capital ... ⊛ SACRAMENTO CITY
Important Towns ... ⊙ Stockton
County Towns ⊙ Jackson
Rail Roads

Entered according to Act of Congress in the Year 1858 by J. H. Colton & Co. in the Clerks Office of the District Court of the United States, for the Southern District of New York.

increased, chiefly by Chinese immigration.* In 1855 the total was estimated at 327,879, and in 1857 at 507,067.

25. The prominent industry of California is gold-mining; but this is by no means the only employment of the people. Agriculture has also become a leading pursuit, and great advances have been made in manufactures. Manufacturing industry, however, is as yet chiefly applied to the production of machinery for marine and mining purposes, and hence the general wants of the State in this connection are still supplied from the older States and Europe. It may be said, nevertheless, that few States have so abundantly the resources of a national industry, or so unequivocally the means in power and wealth to develop them; yet it is evident that so long as riches can be rapidly amassed in one or two pursuits, that others more intricate and costly in their prosecution will not be engaged in; nor is this state of facts to be lamented, since it lays the foundation of a broad connection with the commercial world, and is the prime cause and means of distributing its own peculiar product.



GOLD DIGGING.

26. Mining, as before stated, is the chief pursuit. The metals principally obtained in California are gold and indirectly silver and quicksilver. The value of gold produced and manufactured for export since 1848, the year of its first discovery, to the ending of 1857, has been estimated at $416,000,000—thus, annually:

1848.....	$5,000,000	1850.....	$45,000,000	1852.....	$46,000,000	1854.....	$52,000,000	1856.....	$51,000,000
1849.....	20,000,000	1851.....	48,000,000	1853.....	55,000,000	1855.....	45,000,000	1857.....	49,000,000

—of this amount $383,873,099 had been coined at the United States mints, and the remainder absorbed in direct exports to foreign countries or retained in the State. The gold is chiefly obtained from surface washings, but already a large amount of machinery is employed in quartz mining; and, in connection with this industry, several hundred miles of canals and ditches had been constructed. The average amount of quicksilver obtained annually is about 22,000 flasks, each weighing 75 pounds, and the total amount† produced since the discovery of the New Almaden mines to the end of 1857 was estimated at 111,933 flasks. The other minerals known to exist, with the exception, perhaps, of coal, have not as yet become objects of industry.

27. Agriculture is in no less flourishing condition than mining. Until the harvest of 1854 the great portion of breadstuffs were imported from Chili and the United States; but from that period the products have been ample or even more than sufficient for the population. Of wheat not less than 3,000,000 bushels were raised, and of barley not less than 4,000,000 bushels. Corn and oats were also largely grown, and the potato and other culinary vegetable crops were abundant. In the southern counties the grape and pear crops were exceedingly large. Upward of half a million heads of cattle are found at pasture.

28. The present manufactures of the State do not extend to the textile fabrics, nor yet to the many minor branches so essential to civilization. But its manufacturers, machinists, mechanics, and builders find ample employment in supplying the immediate necessities of commerce and domestic industry. In fact, many of the steamers and other vessels navigating the waters of the State, and most of the machinery used by the miners, have been constructed by resident mechanics; nor is progress less marked in the rapid improvement of the cities—in the construction of wharves, warehouses, stores, and dwellings, many vieing in extent, architectural beauty, and solidity with those of states numbering centuries of civilized existence.

29. Commerce,‡ as a necessary consequence of the progress and prosperity of the people in other departments of industry and general wealth, has maintained its legitimate station among the great industrial interests of the State. Dating its organization scarce ten years since, the foreign commerce of California, bearing necessaries and luxuries from every clime and exchanging them for its gold, stands unrivaled in the history of the past, and presages the proud position it is destined to occupy as a commercial State; and situated as it is on the confines of the continent, midway between the Indies, Asia, and Europe, such a State can not fail to take a lead among the nations of the world. Already California has outstripped many of its sister States in its commercial aggregates.

30. Nor is the State deficient in domestic or internal commerce. Supplies for the mines are carried in hundreds of steamers and sailing craft on the rivers and bays, and the same highways are those used chiefly by the people in their movements. Inland travel between all the principal towns is also effected by means of stages, which run regularly. But these facilities are unequal to the accommodation of the commercial activity of the people, and hence the railroad is about being inaugurated, and already the electric telegraph is in successful operation.

31. To accommodate the wants of a people situate as now in isolation from the old States, and accessible only by sea or a laborious overland route, other and more facile means of communication are needed. To supply this a railroad or other great highway must necessarily be built across the continent, or one to connect with those already built or in progress between the Atlantic and the Mississippi. This great improvement is now demanded, and already surveys have been made, opinions on various routes elicited, and the aid of Congress in the construction of the work applied for. Owing, however, to the magnitude of the undertaking, and the known obstacles to be encountered, nor less to the political questions involved, many years must elapse before this desirable and highly important project will be finally consummated. But until this great work shall have been completed, and overland travel rendered expeditious and secure, the establishment of military posts along the routes of travel is of vital importance, and from the aid these might give to immigrants in protecting them from the Indians, and in supplying them in times of need, immigration would be greatly encouraged, and the general prosperity of all the States of the Union advantageously promoted. To California these measures are essentially matters of the highest account.

32. The constitution secures the right of voting to every white male citizen 21 years of age, and a resident six months in the State. All elections are by ballot. The legislature consists of a senate and assembly, and convenes annually on the 1st Monday in January. Assemblymen, not fewer than 30 nor more than 80, are chosen for one year; and senators, in number not less than one third nor more than one half of that of assemblymen, for two years, one half annually. The governor is elected by a plurality of votes for two years. The lieutenant-governor is *ex officio* president of the senate. Administrative officers, except the secretary of state, who is appointed by the governor, the senate concurring, are also elected for the same period.

33. The judiciary consists of a supreme court, district courts, county courts, and justices of the peace. The supreme court has a chief-justice and two associate justices, who are elected for six years. It has jurisdiction in all cases exceeding $200, and in all criminal cases amounting to felony, or questions of law alone. District courts (the judges of which are elected for six years) have original jurisdiction in law and equity in all cases exceeding $200, and in all criminal cases not otherwise provided for, and in all issues of fact joined in probate courts. The county court consist of a judge elected for four years, who performs also the duties of surrogate, and with two justices of the peace holds courts of session. Tribunals of conciliation may be established.

34. In 1852 the total taxable property in the State was valued at $56,982,320, and in 1857 at $131,806,268. The total income derived from taxes and other sources in 1857 amounted to $1,152,234, and in the same year the expenditures amounted to $699,803. The public debt in December, 1857, amounted to $3,702,365. The principal institutions supported wholly or in part by the State are the Lunatic Asylum at Stockton, and the State Prison at St. Quentin, 10 miles north of San Francisco.

35. The common school system of California was organized in 1852, and during the year 11,252 scholars were registered. In 1857 the State contained 357 common schools, with 483 teachers and 35,722 scholars. This branch of education is endowed with 16,836 sections or about 6,000,000 acres of land. A State University and other colleges have been founded.

36. San Francisco, the commercial metropolis of the State, is situate on a narrow neck of land, between the bay of the same name and the Pacific Ocean. Latitude 37° 47′ 35″, and longitude 122° 26′ 15″. It was founded by the Spaniards about the year 1776, and called Yerba Buena; but before the war with Mexico it never contained more than 500 inhabitants. In 1848, on the discovery of gold, it became the rendezvous of the miners and the depôt of a vast commerce, at the same time rapidly increasing in population and wealth. In 1850 it was incorporated as a city, and contained, according to estimate, about 20,000 inhabitants. In 1852 the population was ascertained to be 34,876. In 1850 there were only three brick houses in the city: in June, 1854, it contained 626, many of them substantial edifices of three, four, and five stories; and the population was estimated at between 40,000 and 50,000.



STREET IN SAN FRANCISCO.

37. The principal edifices are the Custom House, Mint, Marine Hospital, several theaters, and the Musical Fund Hall. The business portion of the city is that facing the harbor. In 1854, 1,028 vessels (555,794 tons) entered the port, and 1,691 (635,484 tons) cleared. The shipping owned in the port amounted to 93,519 tons, of which 46,263 tons was registered shipping. Semi-monthly communication is kept up with the Atlantic ports by steamers. The flux and reflux of population is thus regularly provided for, and an active commerce maintained.

38. The population of the city is singularly hybrid, and consists of representatives of all nations, among which are conspicuous the natives of China, who form a large moiety of the whole. The city is governed by a mayor and court of aldermen, and has an efficient police; but nevertheless is one of the most profligate cities of the world. San Francisco, however, is a wonderful place: in a few years it has risen from an insignificant village to a splendid city of palaces, and to be the center of a world-wide commerce.

* The arrival of Chinamen in California has been as follows—in 1849—323, in 1850—447, in 1851—2,716, in 1852—28,434, in 1853—4,316, in 1854—15,063, and in 1855—3,212. The State legislature has recently passed a law to prevent this immigration.

† Quicksilver (flasks) produced in 1853—18,800, in 1854—20,963, in 1855—27,165, in 1856—23,740, and in 1857—21,265.

‡ The following table comprises the official returns of the foreign commerce and navigation of California since its occupation by the United States:

Years.	Commerce. Exports. $	Commerce. Imports. $	Navigation. Entrances. Tons.	Navigation. Clearances. Tons.	Shipping owned. Sailing. Tons.	Shipping owned. Steam. Tons.	Shipping owned. Total. Tons.	Shipping Built. Tons.
1850	No returns.	No returns.	130,864	180,128	17,500	91	17,591	—
1851	No returns.	13,531	258,128	430,170	53,307	5,129	58,436	69
1852	No returns.	4,648,587	261,352	360,872	96,222	5,421	101,653	—
1853	No returns.	101,312	258,028	446,501	97,662	6,547	104,209	137
1854	3,423,245	8,407,701	221,186	432,846	97,447	3,810	101 2 7	124
1855	8,224,066	5,951,879	180,933	328,117	77,984	14,279	92,235	334
1856	10,718,074	7,298,839	171,140	308,258	69,322	14,369	83,691	99
1857	14,435,901	9,137,414	151,623	262 976	72,634	11,916	84,550	950

—no returns were made for 1848-9, and only partial and informal returns until 1854. The above is an abstract of all that appears in the Treasury Reports.

The great bulk of the commerce of California is with the States east of the Rocky Mountains, and which is conducted *via* the Isthmus. Of this, however, we have no uniform official returns, and generally only the returns of gold and quicksilver exported. But who can doubt of its being five times the value of its foreign trade?

39. There are numerous other towns on the margins of the bay, but of these none require special mention except Benicia and Vallejo, on the north shore, which were successively capitals of the State.

40. In 1853 the government removed to Sacramento City, on the left bank of the Sacramento River, about 150 miles from San Francisco. It is a substantial place, and as a commercial town is only second in importance to San Francisco, being the interior depôt of the mines. Steamboats of large size navigate the river to this point, and boats of less dimensions ascend much farther north. The site is low, and a levee has been built to prevent its inundation. In 1852 it contained about 10,000, and now (1855) has probably 20,000 inhabitants.

41. Marysville, near the confluence of the Yuba and Feather rivers, and about 20 miles above the junction of the latter with the Sacramento, is another important mining town. It contains between 8,000 and 9,000 inhabitants. The other more important places in the northern mining region are—Downieville, Nevada City, Yuba City, Nicolaus, Auburn, Colloma, etc. The most northern place in the valley is Shasta City, on the head-waters of the Sacramento.

42. Stockton, on the San Joaquin, near its confluence with the Sacramento, is the chief depôt of the southern mines; and on tributaries of the San Joaquin are several important towns, as Moquelumne Hill, Sonora, Mariposa, etc., and a large population is collecting about the Kern River, at the southern extremity of the great valley.

43. The principal places west of the Coast Range, and chiefly on the Pacific shore, are—San Diego, which has an excellent harbor; Los Angeles, the largest town of Mexican California; Santa Barbara, San Luis Obispo, Monterey, Santa Cruz, and San José, all south of San Francisco, and originally mission stations. North of San Francisco are—San Rafael and Sonoma, and beyond Cape Mendocino several settlements in the vicinity of Humboldt's Harbor and the Klamath River. Crescent City, on Point St. George, is the most northern town in California.

44. California was visited as early as 1570 by Sir Francis Drake. This great navigator on his return reported his conviction that there was "no part of the country wherein there is not some special likelihood of gold." Yet though his statement was frequently repeated by subsequent voyagers, no search seems to have been made for the precious metal. The Spaniards were also well informed as to the existence of gold in the country.

45. Under Spain the history of California is only interesting on account of its missions, and its population consisted mainly of Indians and the priests and servitors attached to these establishments. When Mexico threw off the Spanish authority and became a federal republic, California, not having a sufficient number of inhabitants to form a State, was erected into a Territory, and as such embraced the whole region west of New Mexico and north of California Baja and Sonora.

46. Thus matters stood until 1844 or 1845, when parties from the United States began to move into the Territory; and eventually these, on the breaking out of the war between Mexico and the United States, took possession of the country. At the peace of Guadalupe Hidalgo, 2d February, 1848, it was ceded to the Union. About this time the opinion of Drake was verified—gold was discovered; and on information of the event reaching the the Atlantic, a mighty emigration commenced, not only from the old States, but also from Europe and Asia, which has since continued. The country rapidly filling up, the military government which had been instituted by the home authorities was superseded by one based on a constitution, promulgated by a convention on the 13th October, 1849. Thus California became a State, and as such was admitted into the Union on the 9th September, 1850, but with its original limits diminished by the formation of the territories of Utah and New Mexico.

47. In 1858 the population of the State was decimated by the sudden emigration of 50,000 miners to the gold-fields of Fraser River, in New Columbia.

STATE OF OREGON.



1. Oregon lies between latitudes 42° and 46° 18′ north, and longitudes 116° 40′ and 124° 30′ west; and is bounded on the north by Washington Territory, on the east by the Shoshone Territory (formerly the eastern section of Oregon and now temporarily attached to Washington Territory), on the south by California, and on the west by the Pacific Ocean.

2. This State forms an irregular parallelogram with an average extent east and west of 380 miles, and north and south of 270 miles; and its area is computed at 102,600 square miles, or 3.49 per cent. of the whole area of the Union.

3. Oregon, as a Territory, extended from the Pacific Ocean to the Rocky Mountains: its limits eastward are now the Snake River or Lewis' Fork of the Columbia. Within this extent are found three distinct physical regions, the limits of which are demarked by the Cascade Range and the Blue Mountains.

4. From the ocean to the Cascade Mountains the land has a breadth varying from 80 to 150 miles; and this section is the only really agricultural portion of the State. It includes the valleys of the Willamette, Umpqua, and Rogue rivers, all of which have their origin in the mountains. The valley of the Willamette which runs from south to north occupies about two thirds of this region, and opens into the valley of the Columbia. The Umpqua and Rogue have transverse valleys and empty into the Pacific Ocean. The highest peaks of the Cascade, or as they are sometimes called the Calapooya Mountains, are Mt. Hood (18,361 feet), Mt. Jefferson, and Mt. Pitt or McLaughlin.

5. The country between the Cascade and Blue mountains consists of the valleys of Fall River, a tributary of the Columbia which occupies the north, and that of the Klamath which runs into California and empties into the Pacific in 41° 38′ north latitude. The two valleys are separated by a transverse range which connects the two north and south ranges. Besides these there are also several smaller independent valleys. Otherwise the whole region is full of hills, and has not improperly been called the pastoral section.

6. Eastward of the Blue Mountains the country is wild, sterile, and impracticable, covered with mountain ranges and isolated buttes, and for the most part is apparently valueless for any industrial purposes. In a few of the valleys which are subsidiary to the great valley of the Snake there are sections of great fertility, but generally the scene is uninviting. The same character belongs to the country eastward to the Rocky Mountains.

7. The Columbia, the great river of Oregon, is navigable for sea-going ships from the ocean to the Cascade Range about 130 miles, and for boats for several hundred miles farther. It rises in and drains the whole slope of the Rocky Mountains from the 42d to the 49th parallel, and with its branches the whole country westward to the immediate coast hills. Its principal tributaries in this State are the Willamette and Fall rivers, and its great southern arm the Snake forms its eastern border. The Willamette is navigable to the falls at Portland.



SALMON SPEARING.

8. The mountains of Oregon have the same geological formation as those of California, and are probably as full of gold. This metal has been found in the rivers emptying into the Pacific, and also in the Klamath valley. Coal is also found in the valley of the Willamette. The soils of the section west of the Cascade Mountains and of all the valleys is deep and rich, and the climate much more mild than in the same latitudes in the Atlantic States. Timber grows on the hills and mountains to a vast size, and consists of all the useful varieties as oak, pine, maple, etc.

9. Speaking of the physical condition and resources of this country, Governor Whittaker in his inaugural delivered on the 6th July, 1858, thus discourses: "Oregon is probably one of the most attractive portions of the North American continent; at once beautiful and picturesque, with a healthy and salubrious climate, well adapted to the production of all the cereals; a sea-board of some 300 miles, with numerous harbors and inexhaustible fisheries; arable land sufficient to supply three millions of souls with bread; grazing land sufficient to supply twice that number with meats; probably no country better adapted to the production of wool, flax, and hemp, and it is admitted that Oregon excels in her growth of fruit; her mountains are covered with the finest of timber and underlaid with gold, and recent discoveries show that we are not without a goodly supply of lime and coal; her streams afford some of the best water privileges in the world, and her rivers are navigable for steamboats at all times of the year."

10. In 1850 Oregon contained 12,093 inhabitants, and in 1853 a State census gave it at 33,324. In 1858 it was estimated at 80,300, namely, 75,000 white persons, 5,000 Chinese, and 300 colored persons. In the mean time the value of taxable property had risen from $5,063,474 to $18,463,772.

11. The counties with the principal towns in each are as follows:

Benton	*Corvallis*, Jennyopolis, etc.	Linn	*Burlington*, Albany, Syracuse, etc.
Clackamas	*Oregon City*, Canemah, etc.	Marion	Salem, Buttervile, Parkersville, Santiam City, etc.
Clatsop	*Astoria*, Lexington, etc.	Multnomah	*Milwaukee*, etc.
Columbia	*St. Helens*, Rainer, Milton, etc.	Polk	*Dallas*, Eola, Independence, etc.
Coose	*Port Orford*, Crescent City, Empire C., etc.	Umpqua	*Umpqua City*, Scottsburg, Elkton, etc.
Douglas	*Winchester*, Canyonville, etc.	Wascopen	——.
Jackson	*Jacksonville*, Dardanelle, etc.	Washington	*Hillsboro'*, Portland, Linn City, etc.
Killamook	——.	Yam Hill	*Lafayette*, Dayton, Willamette, etc.
Lane	*Eugene City*, etc.		

—and new counties and cities are being constantly established.

12. Salem, the State capital, is situated on the right bank of the Willamette, 98 miles from its mouth. It is a thriving place of 1,200 inhabitants. Oregon City, 53 miles above Salem and on the same river, has about 1,000 inhabitants. The falls at this point afford excellent water-power. It was formerly the capital of the Territory. Portland, 12 miles below Oregon City, is the principal commercial port of the State, and contains 2,000 inhabitants. The State Prison is located here. St. Helens is a thriving town at the confluence of the Willamette with the Columbia.

12. The other principal towns on the Willamette are—Milwaukee between Portland and Oregon City; Linn City opposite the last named; Cincinnati opposite to Salem; Santiam City and Syracuse on the Santiam, a tributary; Albany six miles south of the latter, and on the main Willamette; Marysville and Eugene City still farther south. All these are well located for trade, and have good facilities for manufactures.



PORT ORFORD.

13. On the Umpqua there are the towns of Umpqua City, Winchester, Scottsburg, Providence, etc. Umpqua City is located on the north estuary of the Umpqua, and has a fair harbor. On Rogue River and its tributaries there are also several thriving places settled by miners, and at Cape Orford there is a town of the same name.

14. Astoria is a noted settlement near the mouth of the Columbia. It was founded by the Pacific Fur Company in 1811, and takes its name after John Jacob Astor, the celebrated millionaire, who was the chief proprietor in the company. It is now a place of only secondary consideration in the State.

15. The Columbia River was first entered by Capt. Gray, of Boston, on the 11th May, 1792. The Spaniards and English had been on the coast many years before, and had even made settlements for trading purposes; but on this discovery the United States based a general claim to the whole country watered by the river.

16. In 1804–5–6 Lewis and Clarke explored the country from the mouth of the Missouri to the Pacific, and spent the winter of 1805–6 at the mouth of the Columbia, and in 1811 the Pacific Fur Company built Fort Astoria, which during the war that ensued shortly after was taken by the British. The fort, however, was restored in consequence of a general provision in the treaty of peace; and in 1818 the United States and England, by the convention of London, agreed to a mutual occupancy of the whole country, which agreement was renewed in 1828, with a proviso that it should be determined by either party on giving one year's notice to the other.

17. Many citizens of the United States had settled in this Territory, and during the presidency of Mr. Polk it was thought advisable to terminate the joint occupancy and mark the boundaries between the British and American countries. The subject became a partisan then, and engendered a vast amount of high talk on both sides of the Atlantic. At length, however, the subject was settled by making the 49th parallel the boundary between the two sovereignties, and so it remains to the present day.

18. On the 14th August, 1848, the American portion was erected by Congress into the Territory of Oregon, and soon after a government was established. On the 2d March, 1853, the Territory of Washington was divided off from Oregon, and included all that portion of the Territory lying north of the Columbia and the parallel 46° north latitude. The progress of these Territories has since been rapid, and that of Oregon has repeatedly asked to form itself into a State of the Union. On the 18th April, 1858, a bill for this purpose passed the United States senate, but for want of time was not acted upon by the house of representatives. Under the supposition, however, that it had become a law, the State government was inaugurated on the 6th July following. Under the new regime the eastern portion of the Territory is temporarily attached to Washington Territory.

TERRITORY OF WASHINGTON.

1. Washington is situated between latitudes 45° 32′ and 49° north, and longitudes 111° 54′ and 124° 40′ west; and is bounded on the north by De Fuca's Strait and British Columbia, on the east by the Rocky Mountains, on the south by the Shoshone Territory (attached to Washington) and the State of Oregon, and on the west by the Pacific Ocean.

2. The average extent of the Territory north and south is about 200 miles, and east and west about 580 miles. The area is estimated at 123,022 square miles, or 4.19 per cent. of the whole United States.

3. The Pacific coast of Washington is more broken in upon by arms of the sea than that of Oregon. Commencing at the mouth of the Columbia, which here forms a large bay, the seaward limit of which is Cape Disappointment, and proceeding north we come to Shoalwater Bay, and near the 47th parallel to Gray's Harbor, the latter of which receives the Chehalis River. From this point northward to Cape Flattery the coast is little indented. The Strait De Fuca, which lies between this Territory and the island of Vancouver, connects an extensive inland basin, including Puget's Sound, Hood's Canal, and Admiralty Inlet with the Pacific. These are arms of a great bay extending between the southeast coast of Vancouver's Island and the mainland, and together form an immense line of water communication, extending 70 or 80 miles into the land, the whole being studded with numerous large and small islands, capable of the most profitable cultivation. The banks are everywhere precipitous, and so oblique below the water-mark that the largest ships may lie close in shore.

4. Otherwise Washington belongs mostly to the basin of the Columbia, and in common with Oregon enjoys the advantage of having the main stream of that great river on its immediate border. The whole country east of the Cascade Mountains belongs to this basin, but is subdivided into numerous minor basins by mountains which traverse it in various directions, and by offshoots of the Rocky and Cascade mountains. In the middle of this region is the great plain of the Columbia, occupying the width of the Territory between the Cœur d'Alene Range and the outliers of the Cascade—a country for the most part badly watered and almost desert, except near the river and its branches. East of the first-named range the surface consists of a succession of high hills and elevated valleys, containing the head affluents of Clarke's Fork of the Columbia, which in several instances almost interlock with the head streams of the Missouri.

5. The Cascade Range is much less elevated than the Rocky Mountains, but it has several lofty culminations, of which Adams, St. Helens, Rainer, and Baker are the highest. In the Coast Range, which incloses the great inland water of Puget's Sound on the west, Mount Olympus is the highest point, being 8,197 feet. The country west of the Cascades is that at present inhabited. It has a highly varied surface, a moderate climate, and soils of great fertility. Except where traversed by the Coast Range it slopes generally to the west, sending down numerous streams to Puget's Sound and the Columbia. Only few rivers flow directly to the sea, and of these the Chehalis and Sawamish are the most important; several smaller ones empty into Shoalwater Bay.

6. Washington as a part of Oregon comprised the two counties of Lewis and Clarke, and contained, according to the census of 1850, 1,201 inhabitants. In 1854 a local census ascertained the population to be 3,965. The counties and principal towns are as follows:

Counties.	County Seats.	Counties.	County Seats.	Counties.	County Seats.
Clallam	New Dungeness.	Jefferson	Port Townsend.	Skamania	Cascade City.
Chehalis	Bruceville.	King	Seattle.	Thurston	Olympia.
Clarke	Columbia City.	Lewis	Cowlitz Landing.	Wahkiacum	Cathlamette
Cowlitz	Monticello.	Pacific	Cheenook City.	Walla-Walla	Walla-Walla.
Island	Penn's Cove.	Pierce	Steilacoom.	and Whatcom	Bellingham Bay.
		Sawamish	——.		

—within these collectively it is probable that the population at the present time (1858) is not less than 9,000 or 10,000.

7. As yet little is known of the mineral resources of the Territory. Coal has been found on the Chehalis, and also near Puget's Sound; and otherwise there is every probability that the country is abundantly supplied, not only with the more useful, but also with the precious metals. With regard to vegetation, especially in the region west of the Cascades, few localities are so abundantly rich. The forests are gigantic, and comprise fir, oak, maple, spruce, hemlock, cedar, etc. The hills and valleys of the eastern section are also covered with a heavy growth of the finest timber. These forests abound in game and wild animals, and have hitherto been hunted by the servants of the Hudson's Bay Company. Among the wild animals are the deer, elk, otter, beaver, fox, bear, etc. Birds, both land and aquatic, abound; and Puget's Sound and adjacent waters form one of the most valuable fisheries of the world. The salmon of the Columbia have a wide reputation.

8. Olympia, the capital, is situate at the head of Puget's Sound, and on the east shore of the same water are Steilacoom, Seattle, etc. Seattle is the site of the proposed university. Port Townsend is located on a peninsula forming the northwest extremity of the Sound, and New Dungeness on a point on the southern shore of the Strait De Fuca, about 20 miles west. Penn's Cove is the name of a town on Whidby's Island.

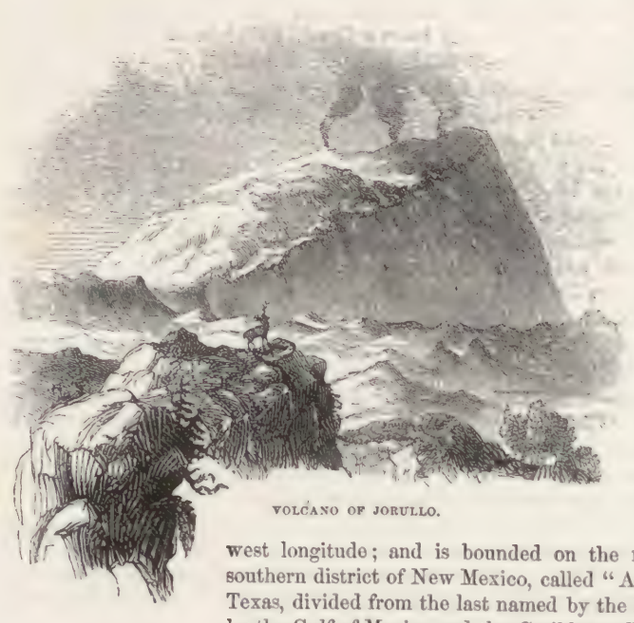
9. In the country intervening between the northern waters and the Columbia are—Bruceville, Highland, Cowlitz Landing, etc., all flourishing places; and above the latter, on Cowlitz River, are the celebrated farms of the Puget's Sound Agricultural Company.

10. On the north bank of the Columbia, commencing at the ocean, are successively Pacific City, on the peninsula of Cape Disappointment; Cheenook City, immediately opposite Point Adams; Cathlamette, at the confluence of the Columbia with its estuary; Monticello, at the confluence of the Cowlitz with the Columbia; Columbia City (formerly Vancouver), at the point where the river bends to the north; and Cascade City, where the river is crossed by the Cascade Range. Farther up, and at the confluence of the Walla-Walla, is the town of the same name.

11. Washington was a portion of Oregon as it existed under the treaty of 1846. It was erected into a separate Territory by the act of Congress passed 2d March, 1853. On the admission of Oregon into the Union in 1858 all the eastern portion of the Territory was relinquished, and has been temporarily added to Washington Territory. The excised section contains an area of 82,430 square miles.

UNITED STATES OF MEXICO.

1. Mexico, which under the title of "New Spain" extended north to the 42d parallel and east to the Sabine River, in 93° 30′ west longitude, and embraced the present American States of Texas and California and the vast territories included in the territorial governments of New Mexico and Utah, has by recent events been reduced more than one half in its proportions; and whereas it formerly contained a surface of 1,679,577 square miles, its area at the present day is computed only at 802,416 square miles.



VOLCANO OF JORULLO.

2. Mexico, as now constituted, extends between the parallels of 15° 58′ and 33° 22′ north latitude, and between the meridians 86° 42′ and 117° 13′ west longitude; and is bounded on the north by California, the southern district of New Mexico, called "Arizona," and the State of Texas, divided from the last named by the Rio Grande; on the east by the Gulf of Mexico and the Caribbean Sea; on the southeast by British Honduras and the Central American state of Guatemala, and on the southwest and west by the Pacific Ocean. Its greatest length is a diagonal line extending northwest and southeast between San Diego and the extreme south portion of Chiapas, 1,800 miles, and the greatest breadth of the mainland is in the parallel of the mouth of the Rio Grande, where it measures 750 miles. Its narrowest crossing (130 miles) is at the Isthmus of Tehuantepec, 94° west longitude. The coast-line on both seas has an extension of 5,830 miles.

3. The opposite shores of Mexico differ widely in conformation. On the east the great current of the Atlantic Ocean sweeps round the peninsula of Yucatan and through the Gulf of Mexico, causing a continual increase of sand-banks, extension of the beach, and barring of river mouths. Throughout this coast there is no bay of any importance, no good harbor easy of access, nor any sheltered anchorage. The lagoons—Terminos, Santa Ana, etc.—though within deep and capacious, are inaccessible on account of the small depth of their entrances. In other parts of the coasts lagoons are in process of formation, and in others are rapidly being filled up by sand accumulations. Turning from the Gulf to the Pacific the scene changes completely. On this side the highlands approach the sea-shore, the plains are narrow and rarely very low; and from Acapulco to Guaymas extends a series of fine harbors —Acapulco, San Blas, Mazatlan, Guaymas, etc.—capable of sheltering the largest vessels. The eastern shore of the peninsula of California also offers many bays and small havens; but its west side toward the Pacific is less indented, though not altogether wanting for convenient harbors.

4. The interior is a very remarkable region. It is an enormous ridge, raised by volcanic force, between the two oceans, and ramifying into several chains as the land widens out. This ridge, which forms a continuation of the Andes, is in the isthmus connecting North and South America, where its dimensions are least, a mass of granite varying from 150 to 900 feet in absolute elevation. It leans west to the Pacific, sending off in Guatemala a branch northeast through the peninsula of Yucatan. On entering Mexico the ridge strikes northwest, and acquires a greater breadth, so that the State of Oajaca may be said to occupy the summit of a single ridge, 150 miles wide, falling rapidly on the one side to the Pacific Ocean, and descending by a succession of terraces on the other side to Tabasco and Vera Cruz. To this succeeds the great Mexican table-land, beginning with the elevated plains of Puebla, Mexico, Queretaro, and Michoacan, which have an absolute height of 6,000 to 8,500 feet, a chain of volcanic cones and snowy peaks rising at wide intervals far above them.

5. Between the 18th and 21st parallels the Mexican chain runs north and south. Beyond the latter limit it turns northwest, and passes through the States of Queretaro and Guanajuato, where unusually rich silver mines are contained in its bosom. North of the latter State it divides into three branches, of which the middle one or central chain continues running to the northwest as far as the 30th parallel, beyond which it bends north till, under the name of Sierra Verde, it joins the Rocky Mountains. The east branch runs through San Luis Potosi, gradually sinking till in latitude 26° it disappears on the border of the plain watered by the Rio Grande. The west branch spreads over Guadalajara and through Sinaloa and Sonora, in the latter forming the mountains of Pimeria Alta, which are celebrated for their gold mines.

6. The Mexican chain, though justly considered as a continuation of the Andes, yet differs widely from them in general structure. The South American mountains are frequently intersected by fissures or precipitous valleys in some cases nearly a mile deep. The elevated table-lands inclosed by them, such as the plains of Bogota, those of Caxamarca and Quito, and that round Lake Titicaca, are all of comparatively small extent, and generally accessible only on foot, with mules, or on the backs of Indians. In Mexico, on the contrary, if we start from Tehuantepec, on the shores of the Pacific (latitude 16° 20′), we soon reach the plain of Oajaca, at a height of 5,000 feet, and thence a wheel-carriage can roll without difficulty to Santa Fe, in New Mexico, a distance of 1,400 miles. Though some parts of this route might fall below the level of 2,000 feet, and others nearly reach an elevation of 8,500 feet, yet the slopes are so gradual as to offer no serious impediment to the construction of an easy road; but this facility pertains wholly to the internal communications. The descent from the Mexican table-lands to the sea on both sides is everywhere rugged and abrupt, and presents such difficulties in the way of carrying goods as will probably always cut off the internal and most productive provinces from a fair participation in the world's commerce. In going from the city of Mexico (7,400 feet) to Acapulco, on the Pacific, the road attains a height of 8,600 feet before the rapid descent commences, while the great roads between the capital and Vera Cruz cross the mountains at a height of 10,500 feet. In the isthmus of Tehuantepec, however, the levels are more uniform, and here, in connection with the navigation of the Coatzacoalcos, a railroad is projected by which an easy transit will be effected from ocean to ocean.



VOLCANO OF ORIZABA.

7. The loftiest of the snowy summits and volcanic cones scattered along the Mexican highlands lie all within the narrow zone comprised between the 18th and 20th parallels. They are all of volcanic origin, and in several of them the subterranean fires still continue raging. Ascending west from the Gulf, a little south of Vera Cruz, we meet first, 12 miles from the sea (latitude 18° 24′), the still active volcano of Tuxtla, 5,118 feet high; farther north (latitude 19° 2′) the peak of Orizaba or Citlaltepetl (now extinct), 17,388 feet, its flanks covered with rich woods, and a few miles farther north (latitude 19° 28′) the Cofre de Perote or Naucampatepetl, 13,514 feet high. Southwest of these, on the confines of Puebla (latitude 18° 35′), is the still active volcano of Popocatepetl, 17,735 feet, while 35 miles farther north stands Iztaccihuatl, 15,703 feet high. The latter appears to have been extinguished at an early period, and since the seventeenth century Popocatepetl has had no violent eruption. About 50 miles west of Iztaccihuatl the Pico del Frayle, the highest point of the Nevado de Toluca—another extinct volcano—attains the height of 15,156 feet, and about 120 miles west of this stands Jorullo, which rose on the night of 28th September, 1759, from the level plain to the height of 4,149 feet. Of all the summits here named, only three—Popocatepetl, Citlaltepetl, and Iztaccihuatl—rise above the limit of perpetual snow, which may be assumed to run between latitude 19° and 20° north, at an elevation of 15,000 feet, though varying much with local circumstances. The Nevado de Toluca reaches that limit, but can hardly be said to rise above it.

8. Mexico is in general but sparingly watered, and labors under the almost total want of navigable rivers reaching the interior. Within the tropic the land is narrow, and the streams descending from the elevated interior to the seas on both sides assume the character of rapid torrents, dry at one season and overwhelming at another. Farther north, where the breadth of the continent admits of the formation of great rivers, the dryness of the climate forbids it. The longest and probably the greatest in all respects of the Mexican rivers is the Rio Grande, which now marks the east boundary toward the United States. The Rio de Tampico is formed by the junction of the Panuco, which rises near San Luis, with the Tula, the sources of which are in the State of Mexico. The united streams flowing northeast to the Gulf has a total course of 200 miles. On the bar at the mouth there is but 9 feet of water, but within there is good anchorage in from 5 to 10 fathoms water and ample room, and vessels may ascend to Panuco 40 miles. The Rio San Juan rises in the metalliferous mountains of Oajaca, flows south and east, and forms the great lagoons of Tequiapa and Embarcadero, and at length reaches the sea through the Laguno del Madero, and is navigable for ships 24 miles above its mouth. The Rio de Coatzacoalcos issues from the mountains (latitude 17°), flows east between Oajaca, Tabasco, and Vera Cruz, then widening round to the north and east falls into the Gulf near latitude 18° north. This river has of late attracted much attention from its projected use in forming a part of an interoceanic line of commerce. The Rio



VOLCANO OF POPOCATEPETL.

Tabasco and the Usumasinto are both considerable rivers, rising in Guatemala; the former enters the Gulf at the port of Tabasco: the latter falls into the Laguna del Terminos.

9. The rivers running to the Pacific are toward the south all rapid, and important only as they water coasts more or less populous. The Chimalpa, Tehuantepec, Verde, and Tlascala are considerable streams, but have at present no commercial value. The Balsas or Zacatula descends from the State of Mexico, and after collecting several large streams reaches the ocean with a broad and deep channel. The first great river, however, northward, is the Tolotlan or Grande de Santiago, the second in magnitude of Mexican rivers, and formed by the union of the Laxa and Lerma near Salamanca, in Guanajuato. The sources of the Laxa, in San Luis Potosi, are at least 9,000 feet above the sea. After a very bending course of 600 or 700 miles, the Tolotlan enters the ocean near San Blas (latitude 21° 32′) by several mouths. This great river has many rapids, and is in the rainy season an impetuous torrent. In the dry season, on the other hand, it is fordable 24 miles from the sea. The briefest mention will suffice for the rivers Culiacan, Mayo, Yaqui, and Guaymas, the last two of which, in latitudes 27° 37′ and 28° 26′ respectively, form snug harbors at their mouths. The river Gila, which, until 1854, formed the boundary toward the United States, is by the treaty of that year included within the boundaries of the Northern Union. At its junction with the Colorado it is three miles wide, and navigable for large vessels.

10. The principal lakes, besides those in the plateau of Tenochtitlan, are Chapala in Xalisco, which covers an area of 1,300 square miles, Pascuara in Michoacan, and those of Mextitlan, Cayman, and Parras, the last two being in the tract called the Bolson de Mapimi. The waters of Tenochtitlan are deposited in five principal lakes, situated on different levels: that of Tezcuco, which is near the center of the valley, and covers 70 square miles, is the least elevated. Farther north are the lakes of San Cristobal and Tonanitla, and south is the Lake Chalco, occupying an area of 50 square miles; and these three are five feet higher than Tezcuco. The most elevated, however, though the smallest, is the Lake Zimpango, the level of which is 25 feet above them. These lakes are fed by small rivers, and having no natural outlet are drained by the Desague of Huehuetoco, an artificial canal cut through rock 12 miles long, 150 feet deep, and 300 feet wide, having its embouchure in the Rio Panuco. The waters of Tezcuco are salt, while those of the other lakes are fresh.



VALLEY OF TENOCHTITLAN, AS SEEN BY CORTEZ.

11. Separated from the mainland by the Gulf of California and Rio Colorado, and projecting southward from the southwest corner of California Alta, is the great Californian peninsula, terminating in Cape San Lucas, in latitude 22° 52′ north. Its greatest length is about 700 miles, with a breadth varying from 30 to 120 miles. This peninsula is volcanic, and traversed through its whole length by a continuation of the Sierra Nevada, 1,000 to nearly 5,000 feet high, the culminating peak, the Sierra de la Giganta, being 4,927 feet. This range is almost bare of verdure, and the whole peninsula destitute of water. Only two streams fall from its mountains into the Gulf of California, and only three into the Pacific, and none of them of large size. The climate is generally mild, but very various. The few fertile spots produce corn and roots and fruits in abundance, and the mountains feed a few wild sheep and goats, and to a small extent horses, black cattle, mules, goats, and swine are reared. If the land, however, be barren, the sea compensates the disadvantage. The pearl-oyster is obtained in the Gulf, and fish is in incredible abundance and variety. Gold is supposed to abound in this peninsula. The present population of the country consists chiefly of mongrel breeds of Indians, whites, and negroes. La Paz, the capital, and Loretto are the chief places, both small towns on the Gulf side of the southern quarter of the peninsula.

12. The geological formation of the Mexican Cordilleras is different from that of the mountains of Europe and Asia, in which granite is found, overlaid by gneiss, mica, and clay-slate; while in Mexico, in the eastern chain of the Cordilleras, granite is seldom met with on the surface, and it is overlaid with porphyry, green-stone, amygdaloid, basalt, obsidian, and other igneous rocks. In the western chain, however, bordering on the Pacific, granite appears on the surface. The port of Acapulco is a natural excavation in that species of rock. The great central plateau, between latitudes 14° and 20°, is a mass of porphyry, characterized by the constant presence of hornblende, and the entire absence of quartz. Here are found large deposits of gold and silver. These ores are found also in sienite, as in the mines of Comanja; in the primitive clay-slate, as at Guanajuato, and in the transition limestone, as at Cardonal, Xacala, and Lomo del Toro.

13. The mineral wealth of Mexico, however, is not confined to the precious metals. Iron is found in great abundance in Guadalajara, Michoacan, and Zacatecas; and copper in Michoacan and Guanajuato. Tin is obtained partly from mines, but principally from the washings of the ravines. Zinc, antimony, and arsenic have been discovered, but neither cobalt nor manganese. Quicksilver is mined in Queretaro, but the greater portion used in the extraction of the precious metals is imported.

14. The soils of Mexico are noted for their richness and fertility; but over so large a territory there must necessarily be a great variety, and much that is unfit for cultivation. The principal barren regions occur in the north, above the 30th parallel.

15. Mexico, as regards climate, is divided into the tierras calientes, the tierras templadas, and the tierras frias. The first or hot regions include the low grounds or those under 2,000 feet elevation, on the east and west coasts. The tierras calientes of the west are less extensive than those of the east, the western arm of the Cordilleras approaching nearer to the sea. The mean temperature of this region may be estimated at 77° Fahr. It is especially suited for the growth and cultivation of sugar, indigo, cotton, and bananas.

16. The tierras templadas or temperate regions, which are of comparatively limited extent, occupy the slope of the mountain chains, which bound on either side the central table-land. They extend from about 2,500 to 5,000 feet in elevation, and the mean temperature is from 68° to 70°, and the extremes of heat and cold are here equally unknown. The Mexican oak and most of the fruits and cereals of Europe flourish in this genial climate, the humidity of which produces great beauty and strength of vegetation.

17. The tierras frias or cold regions include all the vast plateau elevated 5,000 feet and upward above the sea. In the city of Mexico, at an elevation of 7,400 feet, the thermometer has sometimes fallen below the freezing-point. In the coldest season the mean temperature of the day varies from 55° to 70°, while in summer the thermometer seldom rises in the shade above 75°. The annual mean temperature may be taken at 62°, being nearly equal to that of Rome. But whenever the table-land rises to more than 8,000 feet, it has, though between the tropics, a rude and disagreeable climate. Under the parallel of Mexico, the limit of perpetual snow varies from 14,000 to 15,000 feet. Vegetation in the central plateau is not, owing to the rarity of the air, so vigorous as in the tierras calientes, and the plants of Europe do not succeed so well as in the tierras templadas.

18. In the tropical and central regions, and as far north as latitude 28°, there are only two seasons: that of rain, lasting from July to the middle of September, and the dry season, continuing from October to the end of May. From the 24th to the 30th parallel the rain falls less frequently; but this deficiency is compensated by the abundance of snow in January and February.

19. There is scarcely a plant that is not susceptible of cultivation in some part of Mexico. Each climate has its peculiar vegetation. The country abounds in trees useful for their timber, gums, and resins. There is also a vast multitude of valuable medicinal plants. Among the forest trees are the roble, a species of very hard oak, the holm or French oak, the ash, pine, chestnut, cedar, mahogany, rosewood, and others equally precious. Most of the fruits of Europe are common and plentiful: the olive and vine generally succeed well, and nowhere are there finer pineapples, pomegranates, guavas. One of the most valuable plants, however, is the manguey, which Humboldt has not inaptly termed the vine of Mexico, and from this is manufactured pulque and mezcal. The manguey is useful also in many other respects: its fibers are converted into ropes and paper, and its prickles serve for pins and needles.

20. Many of the animals of Mexico are analogous to those of other portions of America. Among those decidedly indigenous are the coendue, a species of porcupine, the apaxa or Mexican stag, the conepatl, a species of weasel, the Mexican squirrel, the cayopollin, and the Mexican wolf. Among the dogs of Mexico is one without hair and another without voice, the latter of which was eaten by the aborigines. The bison and musk-ox wander in immense herds in northern Mexico, and the elk is a large and powerful animal. The jaguar and cougar are met with in the lower and hot regions. The domestic animals conveyed to Mexico have prospered there, and multiplied in a remarkable degree. The horses are equally beautiful and vigorous; and in the northeast cattle form the chief wealth of the inhabitants. The birds and insects of Mexico are of beautiful colors, and in immense variety and number. Parrots and paroquets and other tropical birds inhabit the groves of the tierras calientes, which are also infested with venomous insects. Higher up, in the more elevated regions, the character changes, and still more elevated, class on class of animated nature, each different from the other, is successively developed.


VIEW IN MEXICO.

21. The population of Mexico is composed, as in the other Spanish-American states, of three classes, radically distinct—the aboriginal Indians or red men, the Europeans or white men, and the African or negro race, introduced as slaves by the Europeans. These by admixture give rise to other denominations; so that all may be classed with reference to caste and color as follows—Europeans and their American-born descendants the creoles; mestizoes, the progeny of a white father and Indian mother; mulattoes, from the union of the white and negro races; Indians or red race of various distinct tribes; zamboes, resulting from the mixture of the Indian and negro races, and the African negro, the unmixed offspring of this race born in America being called chinos. The distinctions of breed and color were formerly estimated with great nicety, but they have now lost their importance, the privileges of caste being altogether abolished. It is difficult at the present day to define the exact limits of either the white or the red race, but it is quite certain that the latter constitute the great majority of the Mexican population. It is probable, indeed, that four sevenths of the nation are Indians and two sevenths of mixed origin, the remaining one seventh being creoles and chinos, who are altogether but a handful.

22. Within the limits of Mexico it has been said that thirty-five distinct languages are spoken by the Indians. But distinct as these tribes may be in language, manners, and even in physical characters, they still have certain points of general resemblance, which seem to prove that at some remote period they all issued from one common stock. The most widely spread Indian language is that of the most civilized nation, the Aztecs, which, including the dialects spoken by the Totlecs, Chichimecas, etc., extends through several degrees of latitude.

23. The Mexican Indian has the general physical characteristics of the indigenous American. He is well-made and muscular, capable of supporting great fatigue, and attains a great age unbroken by infirmities. In ordinary habits he is temperate and simple. Maize or, in

the low regions, bananas and beans, with the favorite pulque, constitute his subsistence. He rarely tastes animal food. His dwelling varies with the climate: in the warm region on the coast the Indian hut is made of cane and palm-leaf, higher up, where timber is abundant and shelter acceptable, the log-house, and in the cold region on the table-land the sun-dried brick or adobe building. In all cases the plan is the simplest possible—a single room, sometimes divided into two by a mat partition. He is habitually grave and taciturn. He can labor, but not with large views or for a distant object; nor is improvement rapid, for reason weighs little with him against habit. His way of life, indeed, is like a narrow path in the dark woods; his imagination never opens to him a brighter scene, and his only escape from the oppressive shades is by intoxication. Many Indian families, however, have risen to opulence in the pursuits of industry.

24. The mestizoes constitute the bulk of the colored population. They have a pleasing countenance and are inclined, the women particularly, to corpulence. In character they are much more gentle than the mulattoes, whose passions are sometimes dangerously violent. The zamboes and negroes occupy chiefly the sea-coasts and low regions, the climate of which they alone can support. The Mexican creole is distinguished from the true Spaniard by his general meagerness and hard features. In character and disposition he varies little from the primitive mold, and exhibits all the pride, frankness, courtesy, and hospitality of his forefathers.



MEXICAN POBLANOS.

25. The costumes of the country, as well as its political constitution, have undergone a total revolution within the past half century. Formerly the men wore small jackets, loose trowsers, laced boots, and low-crowned broad-brimmed hats, with the capa or ample dark-colored cloak. At the present day the upper classes adopt the fashions of Paris and London, retaining of their primitive costume nothing but the capa. The ladies still go to church in the ancient attire—black silk gowns and the shawl-vail, which covers the head and hands, down over the back and shoulders: elsewhere they yield to the innovating influences of French millinery; and the only modern articles of female dress as yet obstinately rejected by them are hats and bonnets.

26. The middle, lower, and colored classes (poblanos) of the population, however, adhere much more steadfastly to the showy ancient costume; and their only ambition is to shine in bright silks and lace vails, covered with gold and silver fringes, and rosaries of precious stone. The ranchero or small farmer is an Arab in his habits, and especially in his love and management of the horse. Dressed in leathern trowsers and jerkin, with his serape over his shoulders, his broad-brimmed and silver-corded sombrero on his head, his heels armed with spurs having three-inch rowels, and provided with his sword and gun, he is a staunch fighter in all revolutions wherever guerrillas are required, a hard rider, and a capital boon-companion. He is a person of lofty thought and aspirations and a devoted patriot, ever ready to defend the Republic.



MEXICAN RANCHEROS.

27. Besides their love of pompous display, the passion which most sways the Mexican is that of gaming, in which all classes indulge. "Monte" is the universal game; but many devote their whole souls to cock-fighting, and of late a passion, imbibed from the English at the capital, for horse-racing has shown itself in many parts of the country. It is to this spirit of gaming we must ascribe the great number of violent deaths or murders which take place in Mexican cities. Nor need it be stated, under such circumstances, that education is in a very low condition throughout the country, or that the science and learning of the Mexican retains, like his household furniture, much of the fashion of the sixteenth century.

28. It is perfectly ascertained that powerful and for the most part kindred tribes descended on Mexico from the north from the seventh to the twelfth century: the Toltecs arriving at the former and the Aztecs at the latter period. It is also certain that these nations had attained to a high degree of civilization: they were good smiths and good masons, and had made some advance in the arts of design. They raised great edifices, constructed vast works—palaces, pyramids, roads, aqueducts, bridges, etc.; they had a more accurate calendar, and one better adjusted by intercalation, than the Egyptians, Greeks, and Romans; and, finally, they had a system of picture-writing by means of which they recorded many facts, and which, if it had not been rudely and utterly demolished, would have probably led them on rapidly in the career of improvement. Attempts have been made to trace the origin of these arts to Siberia, China, Japan, or Egypt. But from whatever quarter the people may have originally come, there seems little doubt that their civilization was developed in the New World. In comparing their habits and acquirements with those of the inhabitants of the Old World, the differences are far more strongly marked than the affinities. Their ignorance of the cereal grains, of milk, and of pastoral pursuits, draws a broad line between the civilization of Mexico and that of Asia.

29. The monuments which remain in attestation of the existence of these ancient nations, their boldness of design, and their progress in the arts of construction, are widely scattered, and there is reason to suspect that they are as yet but imperfectly brought to light. It will be sufficient here to mention the extensive remains of the city of Tenochtitlan, near the modern Mexico, with its dykes, aqueducts, and fragments of a bridge. Oajaca is also rich in ancient remains, among which the chief are the palace and pyramid of Zapotekas at Mitla. Another great pyramid or "teocalli" is to be seen near Cholula, in Puebla; and near Villa Nueva, in Zacatecas, are the extensive and remarkable ruins known as Los Edificios. In Vera Cruz are the pyramids of Papantla, built of colossal masses of porphyry. The extensive ruins of Palenque in Chiapas are well-known; but they have been eclipsed by those of Itzalana in Yucatan, more recently discovered, and which seem to indicate a style of art distinct in some respects from the ordinary Mexican. Besides these antiquities, there is no part of the country but holds the remains of an ancient population—links in the connection of the past and present, and which announce the existence of a people far in advance of the races inhabiting the country when discovered by Europeans.



PYRAMID OF CHOLULA.

30. Mexico, according to the territorial arrangements of 1857, is divided into twenty-two States, besides which there are six territorial governments and the Federal District, the last named consisting of the city of Mexico and immediate vicinity. The name, extent, population, and capital of each of these divisions is given in the subjoined table:

States.	Area, sq. m.	Popula.	Capitals.	Popula.
Aguas Calientes.	2,739..	85,837..	Agu. Calientes	39,699
Chiapas	18,679..	161,914..	San Cristobal	7,649
Chihuahua	83,512..	147,600..	Chihuahua	12,069
Coahuila	56,572..	66,228..	Saltillo	8,105
Durango	48,489..	137,593..	Durango	14,000
Guanajuato	11,396..	672,809..	Guanajuato	36,921
Guerrero	32,003..	270,000..	Tixtla	6,501
Jalisco	48,591..	774,461..	Guadalajara	68,000
Mexico	19,539.	1,102,044..	Toluca	12,000
Michoacan	22,993..	491,679..	Morelia	22,000
Nuevo Leon	16,688..	111,846..	Monterey	17,309
Oajaca	23,642..	489,969..	Oajaca	25,000
Puebla	8,879..	683,725..	Puebla	71,631
Queretaro	1,884..	147,119..	Queretaro	27,456
San Luis Potosi.	28,142..	390,360..	S. Luis Potosi.	19,678
Sinaloa	33,722..	160,000..	Culiacan	9,647
Sonora	100,228..	147,133..	Ures	6,009
Tabasco	12,359..	63,580..	S. J. Bautista..	5,300
Tamaulipas	30,334..	108,514..	Cuid. Victoria	4,621
Vera Cruz	27,415..	274,686..	Vera Cruz	9,647
Yucatan	48,899..	668,623..	Merida	23,575
Zacatecas	27,768..	280,087..	Zacatecas	15,427
Territories.				
Tlaxcala	1,984..	80,171..	Tlaxcala	3,468
Colima	3,019..	61,243..	Colima	31,774
Baja California	60,662..	12,000..	La Paz	1,254
Tehuantepec	12,526..	82,395..	Minatitlan	339
Isla del Carmen	7,298..	12,590..	V. del Carmen	3,068
Sierra Gorda	3,127..	55,358..	S. L. de la Paz	4,411
Distrito Federal	90..	220,000..	Cud. Mexico	185,000
Total	793,179.	7,859,564		691,744

The population above given is that of the government estimate for the year 1857, which gives nearly 10 to the square mile. The distribution is very unequal, however, being less than 3 for the northern States, consisting of Tamaulipas, Nuevo Leon, Coahuila, Chihuahua, Durango, and Sinaloa and Sonora; about 25 for the central States, viz., Aguas Calientes, Guanajuato, Jalisco, Mexico, Michoacan, Puebla, Queretaro, San Luis, Tlaxcala, Vera Cruz, and Zacatecas; and 12 for the southern States, embracing Chiapas, Colima, Guerrero, Oajaca, Tehuantepec, Tabasco, Yucatan, etc. Thus the largest populations are found on the table-lands and next at the south, and the smallest at the north. The coasts on both sides are very sparsely populated.

31. The population of the country has increased about 50 per centum in 64 years, having, according to the Spanish census of 1793, amounted to 5,270,029, and in 1857 to 7,859,564. In 1803 Humboldt estimated it at 5,837,100; in 1824 Poinsett stated it at 6,500,000; and in 1830 Burkhardt's estimate made it 7,996,000. The last estimate was evidently too large, as nine years after the Mexican Society calculated the total at 7,065,000, and again in 1842 at 7,015,509. Tejada in 1851 made it 7,661,520, and as above, in 1857, it had risen to 7,895,564. No census has been taken since 1792, and the only basis of any estimate since made has been the returns of births and deaths made in localities. The territory ceded, in the mean time, had little population—not sufficient to even modify these results.

32. The production of gold and silver has arrived at a state of prosperity unknown in former epochs, and this prosperity would be yet more considerable if the high price of quicksilver were not an obstacle to the extraction of the silver. The annual product of silver is about $35,000,000, and of gold between two and three million dollars. There are in the country, chiefly in Queretaro, Guerrero, Guanajuato, San Luis, Zacatecas, and Jalisco, some 25 quicksilver mines, and these formerly yielded from 250,000 to 300,000 pounds annually; but these have been mainly abandoned since the discovery of the California mines. The richest of these mines is that of Guadalcazar in San Luis, which produced at least one third of the whole. Iron and other mines are but little worked.

33. As to the annual value of the agricultural products of Mexico, nothing definite is known. Assuming the population at 7 859,564, and that each inhabitant consumes $25 worth

MEXICO AND CENTRAL AMERICA.

1/14.495.100 of Nature.

SCALE OF STATUTE MILES.
0 50 100 200 300

200 Geographical or 230.53 Statute Miles to one inch.

PROFILE OF NORTH AMERICA ON LAT. 26 N. FROM THE PACIFIC TO THE GULF OF MEXICO.

ISTHMUS OF TEHUANTEPEC.

ISTHMUS OF CHIQUIMULA

PROFILE OF CENTRAL AMERICA FROM SAN JUAN TO REALEJO & G. OF FONSECA.

ISTHMUS OF PANAMA.

CENTRAL AMERICA

7.247.550 of Nature

SCALE OF STATUTE MILES
0 25 50 100 150 200

100 Geographical or 115.26 Statute Miles, to one inch.

Capitals ⊙ SAN JOSE
Rail Roads .....

Entered according to Act of Congress in the Year 1856 by J. H. Colton & Co. in the Clerks Office of the District Court of the United States, for the Southern District of New York.

annually, the value of that consumed would be $196,334,875. If to this be added the timber cut, the cotton raised, the cochineal produced (about 40,000 arrobas of 32 lbs.), the hemp, silk, beeswax, etc., the total value will not fall short of $220,000,000. But a small portion of these find a foreign market.



FARMING SCENE.

34. The annual value of manufactures is estimated at $90,000,000 or $100,000,000. The manufactures of Mexico consist chiefly of cane sugar, brandy from cane, mezcal (a kind of whisky made from the manguey plant), oil, wine, brandy from the grape, delftware, glass, paper, silk, thread, cotton and woolen yarns, and some cotton goods. In 1850 there were in the country 4 glass factories, 8 paper mills, 72 large cotton factories, and 6 large woolen factories employing machinery, and upward of 70 machines worked by hand in the manufacture of silk. In the cotton manufacture there is also a considerable number of hand machines for making reboses, bed coverings, etc. The woolen manufactures also employ numerous small establishments in the country, where coarse cloths are made. In the large establishments fine cloths, carpets, flannels, etc., are produced.

35. The commerce of Mexico is very limited, and is confined to the reception of foreign manufactures sufficient for the necessity or luxury of a very small class of the population, for which is given in exchange a large portion of the products of the mines and some few products of the soil. For the year ending 30th June, 1850, the duties on importations amounted to $5,233,092, and on exportations to $443,933. The aggregate value of imports does not exceed $40,000,000 a year, and the same sum represents the exports, of which three fourths consist of the precious metals. The total shipping employed in 1850 amounted to 256,692 tons. Of the vessels arriving, 68 belonged to Mexico, 435 to the United States, 108 to England, 69 to France, 60 to Spain, 13 to Hamburg, 24 to Peru, etc. Among the arrivals were—219 steamers, 55 frigates (war), 114 barks, 165 brigs, 63 hermaphrodite brigs, 155 schooners, and 68 pilot boats. The ports open to foreign commerce are—Vera Cruz, Tampico, Matamoras, Campeachy, Sisal, Tabasco, Coatzacoalcos, Isla del Carmen, Ventosa, Acapulco, Manzanilla, San Blas, Mazatlan, Guaymas, and La Paz. There are also custom-houses on the northern and southern frontiers.

36. The roads in Mexico are in a most wretched condition, scarcely deserving the name; but there are exceptions. Of these, the roads from Vera Cruz to Mexico are the best. Few of the interior roads are more than barely passable, except in the more densely populated districts. Of late, however, the government has opened roads from Guadalajara to Tepic and San Blas, and from San Luis to Tampico; and those leading from the capital to Queretaro and Acapulco have been improved. A railroad has also been constructed from Vera Cruz to San Juan, 15 miles, and may be ultimately continued to the capital and the Pacific; and railroads are now in operation between the capital and Tacubaya and Guadalupe. The Tehuantepec navigation and railroad route, if ever completed, will be a great acquisition to commerce. But at present, as before said, the country is sadly destitute of roads fit for travel or transportation; in fact, almost every district is as much isolated from its neighbor as if surrounded by water.

37. Mexico is a federal representative republic. The rights of citizens are nearly similar to those of the United States. The legislative power is vested in a congress consisting of a senate and chamber of deputies. Deputies are chosen for two years by the people, one for every 50,000 inhabitants. Each State and the Federal District elects two senators, and a number equal to all the States is elected by the senate, deputies, and supreme court judges conjointly, the deputies deciding the election in case of the candidate not receiving a majority of all the votes. Judicial power resides in the supreme court of justice, and in circuit and district courts. For the trial of civil and criminal cases in the first instance there are judges and alcaldes. The executive power is vested in the President, whose constitutional advisers are the secretaries of departments.

38. The governments of the States severally, like the general government, comprise the three ordinary branches—legislative, executive, and judicial. The territories are governed by chiefs, dependent on the supreme government of the nation. The States are divided into districts, departments, and sub-departments, in charge of prefects and other officers. In all places of much population there are ayuntamientos having control over all municipal affairs, and a jurisdiction extending to neighboring villages and settlements.

39. The active armed force of the nation in 1850 consisted of—infantry of the line, 3,632 men; cavalry of the line, 1,507; artillery, 658; active militia, 232; sappers and miners, 303; soldiers at military stations, 1,282; National Guard, 1,295—total, 8,909 men, with 520 officers. The navy consisted of the schooner Vera Cruz and several small armed vessels. There are three national fortresses—the Castle of San Juan de Ulloa (132 guns), the Castle of San Carlos de Perote (16 guns), and that of San Diego de Acapulco (21 guns). The fortified places are Vera Cruz and Campeachy, both of which are surrounded with walls, with some small ramparts for artillery. Vera Cruz mounts 109 pieces, and Campeachy 158 pieces. The federal city is also fortified.

40. The annual expenses of the government for 1851 were estimated at $12,525,956, and the estimated resources were $8,450,000—deficit $4,075,956. The national debt amounted to $133,524,242, viz., the external (English) debt, including $6,700,000 interest in arrears, $57,908,250, and the internal debt $75,715,242. The total expenses of the individual States in 1850 amounted to $5,156,859, including the contingent paid to the supreme government. The total value of real estate in the country is estimated at $1,355,000,000. The revenues of the States as individual members of the Republic are derived from direct and indirect taxation—first, on persons, property, and professions, and second, on the products of industry, inheritances, sales of real estate, etc.

41. There are mints at Chihuahua, Guadalajara, Guadalupe y Calvo, Guanajuato, Mexico, Durango, San Luis, Zacatecas, Hermosillo, and Culiacan, and at these in the 18 months ending 30th January, 1850, the coinage amounted to $28,355,405, of which only $1,351,416 was gold. The coinage from the year 1535 to January, 1850, amounted to $2,667,828,851.

42. "The religion of the Mexican nation is and shall be perpetually the Roman Catholic Apostolic. The nation protects it by wise and just laws, and prohibits the exercise of any other whatsoever." The hierarchy consists of an archbishop and eleven bishops. The dioceses contain 184 prebends and 1,229 parishes, with 3,223 ecclesiastics. There are, besides, 146 monasteries, with 1,130 inmates; 59 nunneries, with 3,160 inmates; and 8 colleges of the Propaganda, with 238 inmates. The revenue of the church is estimated at $18,000,000 to $20,000,000 annually.

43. Popular education is quite in its inception. "We may be assured," says Tejada, "that at least three fourths of the inhabitants do not know that there is such a thing as an *Abecedario* (A B C) in the world." Of late years, however, some progress has been made. Several of the States have established primary schools, and many private schools have been opened in the cities. In the city of Mexico, in 1850, there were 129 primary schools, attended by 7,151 scholars. The other educational institutions are—1st. Seminaries, sustained and directed by the clergy; 2d. National colleges in the capital, sustained partly by their own funds and partly by government aid; and 3d. Colleges and institutes in the States sustained by local funds. Of the first class there are ten distributed in the capitals of the several dioceses, and in 1850 these contained 3,024 students; of the second class there are six, viz., the colleges of San Ildefonso, San Gregorio, and San Juan de Letran, the School of Medicine, the Military College, and the College of Mining, and of the third class there are 20, including six preparatory schools. There are other colleges in different parts of the Republic; and in the capital and the States there are many literary and scientific academies.

44. The whole number of literary and political periodicals published in Mexico in 1850 was 54, distributed as follows: Federal District, 11; Puebla, 2; Mexico, 2; Queretaro, 1; Oajaca, 6; Chiapas, 1; Tabasco, 1; Vera Cruz, 5; Yucatan, 5; Tamaulipas, 3; San Luis, 2; Zacatecas, 4; Jalisco, 3; Guanajuato, 2; Nuevo Leon, 2; Coahuila, 1; Chihuahua, 1; Durango, 1; Sinaloa, 1; Michoacan, 1; and Guerrero, 1. The circulation of these is very limited, and none, perhaps, issue more than 2,000 copies.

45. "Of all Spanish America," says Tejada, "there is no nation in which are found so many or so rich collections of books and instruments for the study of the sciences as those which exist in the Republic of Mexico." There are three public libraries in the capital—that of the Cathedral, with 13,000 volumes; that of the Univercidad, with 9,000; and that of San Gregorio, with 4,000 volumes. Of private libraries there are a large number, containing from 200 to 1,000 volumes. Of the college libraries, that of San Juan de Letran contains from 11,000 to 12,000; and that of San Ildefonso, 8,361 volumes. The National Museum, founded in 1822, occupies two large halls and the court of the University buildings, and contains many valuable and curious collections illustrative of the aboriginal and colonial history of the country.

46. The Mexican Republic contains 85 cities, 193 towns and large villages, 4,900 small villages, and 119 missions. Of the cities the largest is that of Mexico, the federal capital, and then follow in order of their importance Puebla, Guadalajara, Guanaxuato, San Luis Potosi, Queretaro, Zacatecas, Morelia, Colima, etc., all situated on the central table-land. In the south the largest places are Merida and Campeachy in Yucatan, and Oajaca in the State so called. Victoria de Durango, Saltillo, and Monterey are the largest in the north. On either side of the country the coast towns, with few exceptions, are small.

47. Mexico is beautifully situated in a large plain 7,468 feet above the sea, inclosed by



PLAZA MAYOR AND CATHEDRAL, CITY OF MEXICO.

lofty mountains and covered with broad meadows and lakes. Latitude 19° 25′ 45″, and longitude 99° 5′ 53″. When taken by Cortez in 1521, Mexico, then called Tenochtitlan, stood on several islands of Lake Tezcuco, and was approached by four great causeways which stretched through the lake and met in the center of the city. Owing to the drainage and more rapid evaporation produced by the removal of the forests and other causes, the lake has receded, and the present city, though occupying the same site, is now about two and a half miles west from its shores.

48. The city is built with the utmost regularity in the form of a square, is inclosed by lofty walls, and consists of a great number of spacious streets parallel and at right angles to each other, and leading to a central square which covers an area of 12 to 15 acres, and is lined with public edifices of the most imposing description. The houses are almost all built of hewn stone, in a very pure style of architecture, are three or four stories in height, have flat, terraced roofs, and are often not only provided with iron balustrades and gates ornamented with bronze, but covered with porcelain mosaic of elegant patterns. The streets are well paved.

49. The most remarkable edifice is the Cathedral, built on the site of the great teocalli

or pyramid temple of the Aztecs, and occupying one entire side of the central square. It is 500 feet long by 420 feet wide, and though not in strict conformity with any order of architecture, is remarkably imposing. The walls are built of unhewn basalt, but the front is covered over with the most laborious carvings, while lofty pillars rise up against the walls for the support of its two lofty towers. The interior is gorgeous: the choir is formed of rare carved woods, and elaborately covered with gilded images; the high altar, raised from the floor on an elevated platform, exhibits a profusion of candlesticks, crosses, and other ornaments of solid gold or silver, and is crowned by an image of the Virgin decked in jewelry estimated at the value of more than $3,000,000; and all the other parts of the church are a perfect wilderness of columns, statues, shrines, fonts, etc.

50. Another side of the great square is occupied by the National Palace, the residence formerly of the viceroys and now of the President. It stands on the site of the ancient palace of Axayacatl, in which Cortez was lodged by Montezuma, and is a quadrangular pile of such enormous dimensions that besides accommodating the President and his family it contains the principal government offices, the supreme court, and the halls of the national legislature. In the southeast corner of the square, opposite the principal front of the Cathedral, is the Casa Municipal or town-house, partly occupied as an exchange. Immediately south of the palace, but without the square, is the University, which contains the National Museum, and has in its front a magnificent modern market. At some distance west of the square is the Mineria or School of Mines, which occupies one of the most elegant edifices in the city, and attached to it is a good mineral museum. In addition to the Cathedral, Mexico contains 50 or 60 churches and convents, few of them remarkable for architectural merit, but most of them possessed of considerable riches, and ostentatiously set off with gaudy decorations. One of the most elegant of the churches is that of San Domingo, a light and airy structure surmounted by a spire and dome.

51. The other edifices and objects particularly deserving of notice are the convents of San Francisco, San Augustine, and La Merced, all of them large and imposing structures, with numerous spires and cupolas, and the last particularly admired for the elegance of its interior; the magnificent aqueducts, by which the city is supplied with water; the public fountains; the colossal equestrian statue of Charles IV. in the court-yard of the University; the Acordada or public prison, a large and substantial structure; the theater; the Plaza de Toros, a large circular inclosure for bull-fights, with accommodation for 3,000 spectators; two magnificent paseos or promenades—the one, the Paseo Nuevo, to the west of the city, consisting of a broad avenue shaded by rows of stately trees, and broken at intervals by fountains, and the other the Paseo de la Vega, on the opposite side of the city, skirting one of the canals leading to the Lake Chalco, and very tastefully laid out; and the Alameda, a park of 10 or 12 acres formed into labyrinths by magnificent forest trees, and the great place for public resorts.

52. The manufactures, of comparatively limited extent, include gold and silver lace, jewelry, and silversmiths' work, woolen cloths, blankets, baizes, cotton goods, hats, soap, liqueurs, carriages, and tobacco. The trade of the city is also very limited, the exports being confined almost entirely to the produce of the mines, while the imports are chiefly manufactured goods from Europe, and silk goods, especially hosiery, from China. Mexico is situated about half way between the Atlantic and Pacific, and has good roads leading to the opposite seaports; and in the year 1857 railroads were completed to Guadalupe and Tacubaya.

53. Puebla, the capital of the State of the same name, is situated on an elevated plain in the midst of a fertile country. It is inferior only to the capital in population and beauty, being regularly laid out, and having an active trade and important manufactures. The churches and monasteries resemble those of Mexico in extent and the richness of their decorations. The Cathedral, a vast and superb edifice, with magnificent ornaments, and the House of Religious Retreat, the richest charitable institution in the world, are among the most remarkable buildings.

54. In the vicinity are Cholula and Tlascala, noted for their ancient greatness under the Aztecs. The last is the capital of the State so called, situated between those of Mexico and Puebla. Oaxaca lies in a beautiful valley, and is one of the prettiest cities in the Republic.

55. Vera Cruz, the principal commercial sea-port, is built on a low and unhealthy site on the Gulf, surrounded by moving sand-hills and marshes. Latitude 19° 11′ and longitude 96° 8′—200 miles east-southeast from Mexico. It is a regularly and well-built city. The harbor, however, is a mere roadstead between the mainland and the island of San Juan de Ulloa, which is covered with a strong fortress. Old Vera Cruz is a village 15 miles northwest, where Cortez debarked in 1518. In the interior is Jalapa, delightfully situated, and its cool, clear sky and beautiful gardens and groves render it an agreeable retreat from the intense heat and sickly air of the port. The other principal towns in the State of Vera Cruz are Orizaba, near the volcanic mountain of that name, and Cordoba, noted for the extent of their tobacco plantations; and Perote, which contains a citadel and military academy, and near which rises the lofty peak called the Coffre de Perote.

56. Acapulco, in the State of Guerrero, on the Pacific, is one of the finest harbors in the country, but like Vera Cruz, lying in the hot low region, is unhealthy. It is an ill-built town, but strongly fortified. Under the Spaniards it was a place of great note, and remarkable for the high tone of its society. It is now inhabited chiefly by mulattoes and zamboes. On several occasions it has suffered terribly from earthquakes.

57. Queretaro is distinguished for the beauty of its site, the magnificence of its edifices, and the wealth and industry of its inhabitants. The convent of Santa Clara is the largest in the world, being two miles in circuit, and is said to resemble a little town in its interior. The woolen manufactures of Queretaro are extensive.

58. Guanajuato is situated in the center of the richest silver mines of the Republic, and is a place of great wealth. It contains a mint, a college, some fine churches, etc. Irapuato and Salamanca, also in the State of Guanajuato, are both large towns. Morelia or Valladolid, the capital of Michoacan, is a well-built city, in which the aqueduct and the cathedral are remarkable constructions. In the southeast part of the State is the volcano of Jorullo.

59. Guadalajara, the capital of Jalisco, is a large and beautiful city, inferior in wealth and magnificence only to Mexico and Puebla. Its streets, broad and airy, its 12 fountains supplied by an aqueduct 15 miles in length, its 14 squares, and its beautiful alameda, give it an appearance of elegance, which is heightened by the magnificence of the public buildings and the neatness of the dwelling-houses. The Cathedral is a vast building, surmounted by two towers, and richly ornamented by gold and silver lamps and vessels, and fine paintings of the Spanish masters. Several other churches, the Mint, the University, and the College are also fine structures. The port of San Blas, in this State, contains a navy yard.

60. Zacatecas owes its importance to the rich silver mines in its vicinity. There is here



ZACATECAS.

a college and the magnificent church of our Lady of Guadalupe. Aguas Calientes is capital of the new State so called. Its cathedral has the appearance of a Moorish mosque.

61. San Luis Potosi is one of the most important commercial cities in the country, being the natural depôt for the trade of Tampico with the northern and western States, some of which it also supplies with various domestic fabrics. It is a well-built town, with large suburbs, and contains several convents, remarkable for their extent, a mint, a college, and numerous churches. Tampico, in the State of Tamaulipas, is a thriving sea-port.

62. Chihuahua is a handsome city, and contains several very splendid churches. In its neighborhood are rich silver mines. Victoria de Durango is also a fine town, with several fine buildings. El Paso del Norte is a noted town at the northeast angle of Mexico. In the State of Sinaloa the principal places are Culiacan, Villa de Fuerte, and Rosario. The last-named is the center of a mining district, and has some commerce by means of the harbor of Mazatlan, 60 miles distant, and at the entrance of which is the small town of Cosala. The principal towns in Sonora are Santa Cruz, the chief town of the Mayo Indians, Los Alamas, a mining town, Pitic, and Arispe. Guaymas, on the Pacific, has an excellent port. The hilly country which lies to the west of Arispe called Pimeria Alta contains valuable gold and copper mines. In the States of Nuevo Leon and Coahuila are the flourishing towns of Monterey and Saltillo; and there are several trading towns along the Rio Grande which have intimate commercial relations with the opposite American settlements. Of these the most important is Matamoras, near the mouth of the river.

63. The earliest traditions respecting Mexico inform us that in 648 it was settled by the Toltecas, a tribe of Indians from the Rocky Mountains, who finally settled near the present city of Mexico. They named the country Anahuac. After flourishing for about 400 years, they were exterminated, but not before they had imparted some degree of civilization to their successors, the Chichemecas, who arrived about 1170. These were again displaced by the Alcohuans, who appeared about 1200. The Aztecs arrived in California in 1196, and gradually finding their way southward, founded their chief city in 1325. This nation rapidly increased in power, and its sway extended from the Atlantic to the Pacific.

64. The conquest of this empire was completed by Cortez in 1521. Under Spain, Mexico was as a subordinate kingdom, governed by a viceroy, and for three hundred years was kept under subjection by that nation. The entrance of the French into Spain also terminated the Spanish power in America. An open insurrection broke out in 1810, in which the clergy largely participated, and in 1813 the first national Congress assembled at Chilpanzingo. One of its earliest acts was to declare the independence of Mexico; but it was not before 1821 that the declaration became a reality. In that year Augustin Iturbide, who had previously been a royalist, declared suddenly for the revolution, and procured himself to be installed as Emperor, under the title of Augustin I. His arbitrary acts after his elevation, however, soon raised up an opposition to his power, and before the end of the first year of his reign he abdicated and withdrew from the country.

65. On the downfall of Iturbide, a provisional executive of three persons was formed; and subsequently, in 1824, a republican government, modeled after that of the United States, was inaugurated, and such, with frequent vacillations from federal to central, has been the form ever since adhered to. Since the era of its independence, however, Mexico has lost several of its finest provinces—Texas in 1836, California and New Mexico in 1848, and a large strip of its northern territory in 1854—more than one half its original territory. And thus it will be until the whole be finally absorbed by its powerful neighbor to the north.

[*Weights, Measures, and Moneys.*—Same as in Spain.

BRITISH HONDURAS OR BELIZE.

1. British Honduras, geographically a part of the peninsula of Yucatan, lies between latitudes 15° 54′ and 18° 30′ north, and longitudes 87° 56′ and 90° 12′ west. It is separated from Yucatan proper by the Rio Hondo, and its southern boundary is formed by the Sarstoon, which falls into the Gulf of Honduras. Its western border is the 90th parallel, and its eastern the Gulf of Honduras. Length north and south, about 175 miles, and breadth, about 112 miles. Area, 18,600 square miles.

2. Excepting the rivers forming the boundaries north and south, the only others of consequence are the Belize, which traverses the territory from southwest to northeast, dividing it into two somewhat equal parts, and the New River, which, rising in New River Lake, flows in a course nearly parallel to the Belize, till it reaches the Caribbean Sea, a few miles south of the Hondo. The rivers are navigable for 20 to 30 miles from their mouths, but higher up are interrupted by rapids and falls.

3. The country north of the Belize, and traversed by the New River, is low and level, and toward the coast swampy, and interspersed with several lakes. East of the New River, however, is a range of hills stretching from northeast to southwest, and joining on to the mountains of Guatemala. South of the Belize the country, though also swampy on the coast, rises inland much more rapidly, and may be generally described as mountainous. It is intersected by a ridge parallel to that of the New River, and also connecting with the Guatemala system of mountains—the east part, both north and south of this ridge, being covered by its lateral branches. The mountains and the wide valleys between them are clothed with extensive forests of the finest timber, including cedars, pines, ironwood, logwood, braziletto, mahogany, etc.

4. The shores are lined with numerous islands or coral keys, and covered with cocoa-nut trees and bushes. The largest are Ambergris Key, toward the north, and Turneff, opposite the town of Belize. These two keys consist of clusters of several small islands, divided by narrow creeks and lagoons. The shores of the continent are rocky, but low, except toward the south, where they are higher, and intersected by ravines.



MAHOGANY CUTTING.

5. The climate, especially during the wet season, is considered more favorable to health than that of any of the West India Islands. The mean annual temperature is about 80° Fahr., but the heat is seldom oppressive from the beginning of July to the beginning of April, being tempered by refreshing sea-breezes, but during April, May, and June it is excessive, though mitigated occasionally by violent thunder-storms. The most rainy months are July, August, and September.

6. The cultivable portions of the soil are extremely fertile, producing readily all kinds of tropical vegetation, of which plantains, yams, mandioca, and Indian corn are grown, and also arrow-root and rice to a small extent. Sugar, coffee, cotton, and indigo might also be raised, but are neglected. Sarsaparilla is collected in the southern districts.

7. The wild animals are those usual to tropical America—ounces, panthers, tapirs, deer, peccaries, agouties, armadilloes, and monkeys. Manatis and alligators frequent the lagoons; birds, aquatic and land, abound, and fish, turtle, lobsters, and shell-fish are plentiful and of excellent quality. The minerals of the country are as yet unsought; but as gold has been found in the beds of the rivers, there seems to be no question of its existence in the mountains. Iron, copper, etc., are said to be abundant.

8. The population in 1851 amounted to 11,066, about 400 of which were whites, and the remainder colored inhabitants. The whites are exclusively occupied in commerce, and the negroes in cutting mahogany and dye-woods, and in fishing. A few of the latter also cultivate small patches of ground. Cattle, sheep, and goats are kept, but not in sufficient numbers, the deficiency being supplemented from Trujillo and Omoa.

9. The exports consist principally of mahogany, the staple article of the country, cedar-wood, log-wood, rose-wood, cochineal, indigo, sarsaparilla, hides, tortoise-shell, with small quantities of lignum-vitæ and tobacco. The total value of exports in 1851 was £411,443, and in 1852, £391,223. The chief exports from the United Kingdom are dry goods and fancy articles for the Belize and Spanish-American markets; wine, spirits, gunpowder, and occasionally provisions; and from the United States, provisions of all descriptions, shingles, and sawed lumber, with some few manufactured goods.

10. The government is administered by a superintendent nominated by the crown, and a legislature of 21 members, 17 of whom are elected, and 4 nominated by the superintendent. The term of office is four years. The supreme judicial authority resides in a supreme court; and there are several inferior courts. The laws of England are generally applicable throughout the colony. Education claims a fair share of consideration, and there are good schools in Belize open to all classes. The colony, formerly subsidiary to Jamaica, has lately been constituted a separate government.

11. Belize, the capital, is the only town in the colony, and is situate at the mouth of the river of the same name, which is here crossed by a substantial wooden bridge. Latitude 17° 29′ 18″ north, and longitude 88° 12′ west. It consists of a long street, running parallel to the sea-shore, from which three or four streets diverge. The houses are constructed entirely of wood, and are raised 8 or 10 feet from the ground on pillars of mahogany, and are well-built, spacious, and convenient. The town seems almost entirely inhabited by blacks. They are described by Stephens as a fine-looking race, tall, straight, and athletic, and well-dressed—the men in white cotton shirts and trowsers, with straw hats, and the women in white short-sleeved frocks and adorned with ear-rings and necklaces. During the dry season fresh water is very scarce here, and, indeed, throughout the settlement, there being no rivulets, and the water of the river being brackish for several miles above the town. The consequence is that the inhabitants at this season are compelled to have recourse to wells about three feet in depth, from which they procure a muddy, brackish, and fetid water, injurious to health, and productive of a variety of disorders. Efforts are now being made to remedy the evil, both by the government and the European public at Belize; and considerable sums have already been expended in sinking wells. An iron market-house has recently been erected in the town, costing about $20,000. There are also a public hospital, a dispensary for the relief of the poor, an asylum for lunatics, and a grammar-school, conducted on the Madras system, and which was attended in 1847 by 102 pupils. This school, which is entirely supported by government, has likewise a female department. A savings' bank has also been established under guarantee of the local legislature. The Baptists and Wesleyans have chapels here with schools connected, the former one and the latter two. There are five judicial courts in Belize—the court of ordinary, and the supreme, grand, summary, and police courts. It is also the seat of the Honduras Legislature. The anchorage in front of the town is excellent, being protected from the heavy swells of the open sea by numerous quays, but is adapted for vessels of moderate size only. Population about 3,000.

12. At Punta Grande, about 150 miles south of Belize, there is a settlement of Caribs numbering about 500 souls. They were formerly natives of the sea-coast below Trujillo, but having taken part against Morazan, they fled to this place for safety.

13. Belize, called also British Honduras, was transferred by Spain to England by treaty, in 1670, but at different times its occupation was contested by the Spaniards till 1798, since which period it has remained quietly in the possession of Great Britain. The settlement is said to have obtained its name from a noted buccaneer called Wallace, by whom it was first discovered. The name was written *Waliz* by the Spaniards, and subsequently further corrupted into Balize or Belize, as it now stands.

[*Weights. Measures. and Moneys.*—Same as in the United Kingdom.]

STATES OF CENTRAL AMERICA.

1. Central America, as a geographical region, lies between latitudes 7° 35′ and 22° 45′ north, and longitudes 78° 20′ and 94° 30′ west from Greenwich. It is bounded north and east by the Gulf of Mexico and the Caribbean Sea, and south and west by the Pacific Ocean. Its greatest extent, in a direction northwest and southeast, is about 1,200 miles, and its breadth varies from 50 to 300 miles. Within these limits are included the Mexican provinces of Yucatan, Chiapa, and Tobasco, the British colony of Belize, and the five states of Central America. The area of the whole is approximately 240,000 square miles. Political Central America is of much less extent.

2. In respect of geographical position, this country almost realizes the ancient idea of the world. Not only does it connect the two grand divisions of the American continent, but its ports open to Europe and Africa on the east, and to Asia and Oceanica on the west. At the Isthmus of Tehuantepec, the Gulf of Mexico approaches to within 200 miles of the Pacific, the waters of the Coatzacoalcos which flows into the former, almost interlocking with those of the Chicapa flowing into the latter. Below this point the land widens, embracing the high table-land of Guatemala upon the west, and the broad plains of Tobasco, Chiapa, and Yucatan upon the north and east. The Gulf of Honduras, however, closes around this section upon the southeast, and again narrows the continent to less than 150 miles. The country intervening between this bay and the Pacific is marked by a complete interruption of the Cordilleras, and is traversed north and south by a great transverse valley through which the large river Ulua finds its way to the Atlantic, and the smaller Goascoran flows into the Gulf of Fonseca, on the Pacific. Still lower down, and passing the grand transverse valley of Nicaragua, is the well-known narrow Isthmus of Panama or Darien, over which the tide of emigration has twice poured its floods—once upon Peru, and again upon the shores of California.

3. In physical aspect and configuration of surface, Central America has not inaptly been observed to be an epitome of all other countries and climates of the globe. High mountain ranges, isolated volcanic peaks, elevated table-lands, deep valleys, broad and fertile plains, and extensive alluvions are here found grouped together, relieved by large and beautiful lakes and majestic rivers; the whole teeming with animal and vegetable life, and possessing every variety of climate, from the torrid to the cool temperature of eternal spring.

4. The great chain of the Cordilleras here, as in South America, runs nearest to the Pacific

coast; but in places it is interrupted, and assumes the form of detached ranges and isolated elevations, groups or knots of hills, between which the streams from the interior high valleys or elevated plains wind their ways to both oceans. As a consequence, the principal alluvions border on the Gulf of Mexico and the Caribbean Sea. Here rain forms in greater or less abundance for the entire year; vegetation is rank, and the climate is damp and insalubrious. The trade-winds blow from the northeast, and the moisture with which they are saturated, condensed on the mountains, flows down to the Atlantic. The Pacific slope is therefore comparatively dry and healthful, as are also the elevated regions of the interior.

5. Three centers of elevation demark the physical and, to some degree, the political divisions of the country. The first is the great plain or broken table-land on which is situated the city of Guatemala, and which is upward of 4,000 feet above the sea. Here the large rivers Usumasinta and Tobasco, flowing northward, take their rise; their sources interlock with those of the Montagua or Gualan, flowing eastward to the Gulf of Honduras and with those of the small streams which send their waters westward to the Pacific. A group of mountains occupies Honduras, presenting an almost mural front toward the Pacific, but shooting out numerous spurs or subordinate branches (like the fingers of an outspread hand) toward the north and east. Between these ranges, and in some cases almost encircled by hills, are several broad valleys or plains of different elevations, in which are gathered the waters of thousands of rivulets and small streams, forming numerous considerable rivers, which radiate



RIVER SCENERY.

north and east into the Caribbean Sea, and south and west into the Pacific Ocean. Among the most remarkable are the Chamelicon, the Ulua, Roman or Tinto, Patuca, Coco (Wanks or Segovia) upon the eastern slope; and the Choluteca, Nacaome, Goascoran, San Miguel, and Lempa upon the western. Intervening between this and the third great center of elevation in Costa Rica is the basin of the Nicaraguan lakes, with its verdant slopes and gently undulating plains. The nucleus of the elevation in Costa Rica is the volcano of Cartago, which towers in its midst. Here the Cordilleras assume their general character of a great, unbroken mountain barrier, but soon subside again into low ridges within the Isthmus of Panama.

6. The principal lakes of Central America are—Nicaragua and Managua in Nicaragua; Yojoa or Taulebé in Honduras; Guija and Ilopango in San Salvador; and Golfo Dolce, Peten or Itza, Atitlan, and Amatitlan in Guatemala. Of these the lakes Nicaragua and Managua are much the largest.

7. The ports, as before mentioned, open respectively to the east and the west. On the Atlantic coast, facing Europe and Africa, Guatemala has Yzabal and Santo Tomas; Honduras has Omoa, Puerto Caballos, Puerto Sul, Triunfo de la Cruz, Trujillo, etc.; Nicaragua has Gracias à Dios, Blewfields, and San Juan. Costa Rica has no good port on the east; but on the west, facing Asia and Oceanica, it has several, of which Golfo Dolce, Punta Arenas, and Caldera are the principal. Nicaragua has on the Pacific, Culebra, Salinas, San Juan del Sur, and Realejo. Honduras has a cluster in the Gulf of Fonseca, viz., Amapala (a free port), San Lorenzo, and La Paz. San Salvador has La Union, also in the Gulf of Fonseca, Jiquilisco, or Espiritu Santo, Jaltepec or Concordia, La Libertad, and Acajutla or Sonsonate. Guatemala has but one port or roadstead, called Yztapa. The best of all these ports in the Atlantic are Santa Tomas, Omoa, Puerto Caballos, and San Juan del Norte. On the Pacific, the best are Realejo, Amapala, and La Union.

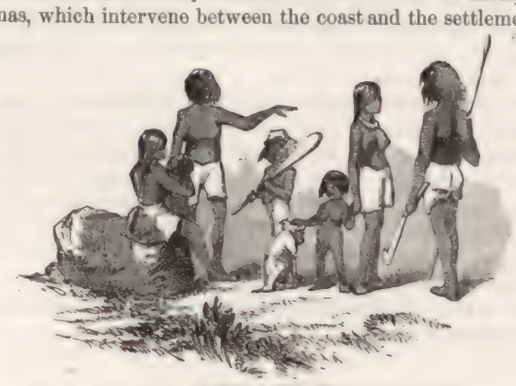
8. The peculiarities in respect to surface explain the almost endless variety of climate which is observed in these regions, and which is nowhere more remarkable. Situated as far south as the eighth parallel, were it not for these the general temperature would be somewhat higher than that of the West India Islands. As it is, the climate of the coast is nearly the same with that of the islands alluded to, and exceedingly uniform; but it is modified somewhat by the shape and position of the shore, and by the proximity of the mountains, as well as by the prevailing winds. The heat on the Pacific coast, however, is not so oppressive as on the Atlantic; less perhaps because of any considerable difference of temperature than on account of the greater dryness and purity of the atmosphere. In the northern highlands of Guatemala the average temperature is lower than in any other part of the country, and sometimes the thermometer marks the freezing-point. In the vicinity of the city of Guatemala the range is from 55° to 90°—average 72° Fahr. Vera Paz, embracing the coast below Yucatan, is nearly 10° warmer. This coast, from Belize down to Yzabal and Santo Tomas, is hot and unhealthy, and the same remark is applicable to the coast of Honduras to Gracias à Dios. San Salvador, on the Pacific, is less elevated than either Guatemala or Honduras, and its general temperature higher. The heat, however, is never oppressive, except at a few points, as Sonsonate, San Miguel, and La Union, where the temperature is influenced by local causes. Honduras, as its name implies, has a very diversified surface, and a consequent diversity of climate. The department of Segovia in Nicaragua, bordering on Honduras, has a like surface and temperature; but the principal part of Nicaragua is widely different in all respects, and has a topography and climate peculiarly its own. The average temperature of the great basin of the lakes is about 79° to 80° Fahr. In Costa Rica, on the west slope of the volcano Cartago, almost any degree of temperature is obtained, according to elevation, from the intensest heat to a constant spring-tide. The eastern coast, from Chiriqui Lagoon northward, is low and unhealthy; and, indeed, the whole Atlantic coast is of this character. Hence it is uninhabited, except by a few squalid Indians, while the coast of the Pacific is lined with towns and occupied by a considerable population.

9. What are called the *seasons* under the tropics, wet and dry, are much influenced in their commencement and duration from local causes. The widest differences are, of course, between the opposite shores. The whole of Central America comes within the zone of the northeast trade-winds, which reach the continent almost saturated with vapor. These winds are intercepted by the high mountain centers, and the condensed vapor flows down to the Atlantic. But the mountains are not in all parts high enough to entirely intercept these winds, and are moreover broken through by transverse valleys. As a consequence, the trades for a great part of the year blow entirely across the continent, reaching the Pacific coast deprived of their moisture and cooled by a passage over the elevated interior, giving to that region comparative coolness, dryness, and salubrity. Properly speaking, there is no dry season on the Atlantic; but from May to October the winds intermit, and less moisture is precipitated. During the same months the Pacific coast is subject to winds from the west and southwest, which precipitate their waters against the western slopes of the mountains, and constitute the western rainy season, but the rains are of brief continuance. The central plateaux or high table-lands have a climate subject neither to heavy rains nor excessive draughts. The winds which reach them east or west are first deprived of their greater moisture, but both bring along more or less rain. From the circumstance, however, that they lie nearest the Pacific, these plateaux partake most of the climate of that coast with which their seasons also measurably coincide.

10. Central America, as a geographical region, includes parts of Mexico, with the British settlement of Belize, and a small part of New Granada. Politically speaking, Central America comprehends only the five states which as provinces constituted the old Captain-generalship of Guatemala, San Salvador, Honduras, Nicaragua, and Costa Rica. These occupy an area of between 155,000 and 160,000 square miles, and contained, in 1855, 2,019,000 inhabitants, distributed as follows:

States.	Area, sq. m.	Population.	Capitals.	Popula.
Guatemala	43,380	972,000	N. Guatemala	40,000
San Salvador	9,600	394,000	Cojutepeque	11,500
Honduras	39,600	350,000	Comayagua	8,000
Nicaragua	49,500	257,000	Leon	30,000
Costa Rica	13,690	125,000	San José	16,000

The above calculations are all exclusive of the Indians, who are not directly incorporated in the civil organization of the several states. Among these the Moscos or Mosquitos, on what is known as the Mosquito shore, are the least advanced. They are a mixed bread of negroes and Indians—perhaps 6,000 in all—who derive their principal support from the creeks and lagoons of the coast to which their residence is strictly confined. The number of Xicaques, Payas, Towkas, Woolwas, and Ramas, which intervene between the coast and the settlements, can not be estimated. The Guatusos, Talamancas, and other tribes in Nicaragua and Costa Rica, are also omitted, as are also the Itzacs and affiliated families, Lacondones, Manches, etc., occupying the northern part of Guatemala. Nearly all these Indians admit a qualified allegiance to the states within which they fall, but the relationship is scarcely more than nominal; and wherever the governments assume to exercise jurisdiction, it is through Indian officials and according to Indian customs. The proportions of the several races in the country are stated by Squier, from whose works this statement is almost wholly abridged, as follows: whites, 100,000; mixed, 800,000; negroes, 10,000; and Indians, 1,109,000.



TOWKAS INDIANS.

STATE OF GUATEMALA.

11. Guatemala lies between latitudes 13° 45′ and 18° 10′ north, and longitudes 88° 12′ and 93° 20′ west; and is bounded northwest and north by Chiapa and Yucatan, east by Belize and the Gulf of Honduras, southeast by Honduras and Salvador, and southwest by the Pacific Ocean. Its greatest length, north and south, is about 300 miles, and its breadth, east and west, from 100 to 200 miles. Area 43,389 square miles.

12. The general bearing of the Pacific coast from San Salvador is first west-by-north and then northwest. The shore is, for the most part, low, the descent from the table-land being steep, and a strip of low land, 20 or 30 miles across, being left between its base and the sea. In many places, however, the shore is high and rocky, and several rocky barriers lie off it. The only port at present frequented is Yztapa (little better than a roadstead), at the mouth of the Michetoyat; Ocas, farther north, formed by the Barra de Ocas, is also an available port, but, owing to the absence of population, is not resorted to. On the northeastern coast

Santo Tomas, in the Gulf of Honduras, is a good and well-sheltered port, but has little trade, owing to the proximity to the more eligible port of Omoa in Honduras; and somewhat inland, in the lake known as Golfo Dolce, is the port of Yzabal, in some respects the principal port of Central America, but inaccessible for large vessels.

13. The table-land of Guatemala is a portion of that which lies between the Isthmus of Tehuantepec and the Isthmus of Chiquimula, and extends north into Yucatan. Near its southern borders, about the city of Guatemala, it is nearly 5,000 feet above the sea. Northward the country rises higher, and is most elevated midway between Totonicapan and Gueguetenango (about latitude 15° 30′ and longitude 91° 45′). From this point it begins to lower gradually, and its northern edges are indented by deep and sometimes wide valleys. No continuous range of any considerable elevation traverses this plateau, but here and there a range of hills rising a few hundred feet above the surface. The descent to the Pacific is steep, and when seen from that direction has the appearance of a range, an illusion which is confirmed by a few lofty volcanic peaks standing on the edge of the descent. The most remarkable of these volcanoes are the active one of Atitlan and the two near New Guatemala, namely, the Volcano de Agua and the Volcano de Fuero. All the volcanoes, whether active or extinct, are situated near the Pacific, and in line with those of San Salvador and Nicaragua. The eastern border of the table-land, by which it descends to the Gulf of Honduras, is cut by deep valleys, between which the highland takes the shape of ridges, which extend to a great distance and in some places advance to the very shores. The country between the sea and the table-land may, therefore, be considered as a succession of valleys and ridges, but the part west and northwest of the Golfo Dolce is a low plain.

14. The principal rivers are the Dolce, Polochie, and Motagua. The Dolce, though short, is the most important, being the channel by which the Golfo Dolce discharges its waters into the Gulf of Honduras, latitude 15° 55′ north. The Golfo Dolce is a fresh-water lake, about 50 miles in circuit, having on its southern shore the small port-town of Yzabal. The river, issuing from its eastern end, turns to the north, and expands into a small lake called the Golfetta, about 10 miles in width. This river is about 20 miles long and of considerable depth, except on its bar, which has only six or seven feet of water. The Polochie rises near the village of Tactic, on the table-land, and soon descending into a wide and deep valley becomes navigable a considerable distance above the Golfo Dolce, into which it falls. It is a rapid river, and deep enough for moderate-sized vessels, but on the bar there are only three or four feet of water. The Motagua rises near Solola, runs through the table-land in an eastern direction till it descends from it some distance west of Zacapa. At Gualan, farther down, it becomes navigable for boats, but is much interrupted by rapids and shoals. Toward its mouth the river turns to the northeast and falls into the Gulf of Honduras, about 15 miles west of Omoa. By means of this river heavy goods are sent to Gualan, and carried thence into the interior on mules. The rivers which fall into the Pacific are numerous, but all have short courses.

15. There are four considerable lakes in the State—of these the Golfo Dolce, noticed above, is the most important. The Lake Peten, in Vera Paz, is of an oval shape, 70 miles in circuit, and contains several islands. Atitlan, near the western edge of the table-land, is about 18 miles long and 9 miles wide, environed by lofty heights, including the volcano of the same name. It is remarkable for its extraordinary depth and for having no outlet, although several small rivers fall into it. Amatitan, 20 miles southeast of the capital, is nine miles long by three miles wide, and also of great depth, and near it are hot and mineral springs. The Rio Michetoyat flows from this lake.

16. The climate of the table-land is that of perennial spring; that of the northeastern and Pacific shores relatively hot and unhealthy. On the table-land goiter is prevalent, especially among the mixed races, and is often accompanied by idiotcy. Earthquakes are painfully frequent. In general the soil is fertile; but except on the declivities of the hilly ranges the table-land is destitute of trees, and even shrubs. On the lower lands, by the Pacific, trees of very large size form extensive forests, and are a source of great national wealth, among which are conspicuous the mahogany, cedar, Brazil, Santa Maria, guaiacum, pimento, etc.; and various medicinal plants are abundant. On the low tract by the Gulf of Honduras there is a luxuriant and vigorous vegetation. The uncultivated lands serve as pastures for vast herds of cattle. On the table-land wheat and maize are grown and most of the fruits and vegetables of temperate climates thrive well. Tropical products abound. In the lower tracts rice is cultivated. Tobacco, cotton, sugar, cacao, vanilla, and indigo are raised for exportation, and most of the cochineal of commerce is obtained in Guatemala.

17. This State is also rich in minerals. Gold, silver, copper, lead, and iron are to be found. Lead mines are worked by the Indians in Totonicapan. Jasper and marble are abundant, and sulphur is obtained in the vicinity of the volcanoes. Along the Pacific shore salt is manufactured. On account of the sparsity of population and the inert character of the major part of the people, however, little has been done to develop the material riches of the country, and hence the greater part is as yet almost a waste.



INDIGO WORKS.

18. The State is divided into seventeen departments and contained, in 1853, 971,450 inhabitants, distributed as follows:

Departments.	Population.	Capitals.	Popula.
Guatemala	89,500	New Guatemala	40,000
Sacatepequez	44,000	Old Guatemala	16,000
Chimaltenango	56,400	Chimaltenango	4,000
San Marcos	89,100	San Marcos	6,000
Suchiltepequez	36,300	Suchiltepequez	4,000
Escuintla	15,250	Escuintla	2,600
Amatitan	33,000	Amatitan	9,000
Santa Rosa	36,000	Santa Rosa	4,000
Mita	72,300	Mita	3,300
Solola	84,200	Solola	5,000
Totonicapan	84,700	Totonicapan	12,000
Gueguetenango	64,800	Gueguetenango	3,000
Quezaltenango	66,800	Quezaltenango	21,000
Chiquimula	72,000	Chiquimula	4,500
Vera Paz	6,200	Coban	10,000
Salama	109,900	Salama	4,500
and Yzabal	9,000	Yzabal	500

—of the above population about three fifths are Indians, three tenths mixed Indians and whites called ladinos, and a tenth descendants of the original Spanish settlers or whites, the remainder negroes, zamboes, etc.

19. The industrial pursuits of these people are chiefly those connected with agriculture and the raising of stock. In some departments they have made no progress, but have retrograded since their separation from Spain. The cotton manufacture, once considerable, has greatly declined, and is now carried on only in the departments near the capital. The manufacture of woolens has retained more of its former consequence, and hats, jewelry, furniture, earthenware, and the ordinary articles of domestic use, are made in several of the towns.

20. The most important of the exports are cochineal (150,000 cwt. annually), mahogany and other woods, vanilla, sarsaparilla, indigo, and hides. Sugar, coffee, and cotton are also exported in small quantities. The imports are principally assorted English goods. In 1851, '52, and '53 the exports were valued at $994,488, $868,550, and $599,047 respectively, and the imports for the same years at $1,354,430, $977,253, and $873,842.

21. According to the constitution of 19th October, 1851, the executive is vested in a president elected by a general assembly, composed of the legislative chamber, the archbishop, members of the supreme court and of the council of state, for five years. The legislative assembly consists of 59 members elected by the people; and the council of state of the ministers of departments, eight councilors chosen by the legislature, and of others appointed by the president. The three departments of government are entirely separate and independent. The Roman Catholic is the established religion. The revenue approximated in 1852 to $1,202,000, and the expenditures to $1,154,000. The public debt amounts to $1,200,000, of which $800,000 represents the domestic, and $400,000 the foreign debts. The state supports an army of 3,200 men, and had, in 1852, a militia force of 12,978 men. It has no navy.

22. Guatemala la Nueva, the capital, stands on a plain 4,961 feet above the sea—in latitude 14° 37′ and longitude 90° 30′, and but 26 miles from its port, Yztapa, on the Pacific. The city is laid out with great regularity, and the houses, which are of one story and inclosing court yards, occupy great space. The most remarkable buildings are round the central plaza; on the east stands the Cathedral, a simple but noble edifice, and near it, on one side, the Archbishop's Palace, and on the other the University. The north and west sides are occupied by other public buildings, and on the south side are the best stores of the city. Besides the cathedral there are 19 other churches and chapels. Water is brought to every house by an aqueduct from springs four miles distant. The commerce of the city is mainly limited to its own consumption, but it has several manufactories.

23. Guatemala la Antigua, about 26 miles west-southwest, is situated in a wide and fertile valley, at the western end of which rise the two volcanoes De Agua and De Fuego. The city itself is at an elevation of 5,817 feet. After its partial destruction by earthquake in 1773, the government removed to the new capital, and the city was ordered to be abandoned; but on account of its fertile neighborhood many returned, and at the present time it contains some 16,000 inhabitants. A great part of the place is still in ruins.

24. Quezaltenango is the next town in importance to Guatemala. It stands on the little river Samala, and is a large, well and regularly built place. Its trade is considerable. Totonicapan is a large town, inhabited nearly wholly by Indians, and has considerable manufactures. Coban, the chief town of Vera Paz, is situated in a remarkably fertile valley, and its inhabitants, chiefly Indians, are industrious and wealthy, possessing fine plantations of sugar-cane, etc. Amatitan, at the foot of the lake of the same name, is the center of a large cochineal country. It is also noted as a watering-place. Few others of the towns have more than from 3,000 to 5,000 inhabitants. Of these several have already been named; others are—Patsun, Atitlan, Masatenango, Tapachula, Tejutla, Momostenango, Jacaltenango, Acasaguastlan, Jalapa, Jilokepeque, Quesaltepeque, Zacapa, and the little port-town of Yzabal. Near this last-named place are the remarkable ancient remains of Quirigua, consisting of seven lofty columns and various sculptured slabs.

STATE OF SAN SALVADOR.

25. San Salvador is situated between latitudes 13° 10′ and 14° 16′ north, and longitudes 86° 45′ and 90° 15′ west; and is bounded north by Guatemala and Honduras, east by Honduras and Nicaragua, from which it is separated by the Goascoran and Gulf of Fonseca, south, by the Pacific Ocean, and west by Guatemala. Its length is, east and west, about 160 miles, and its breadth from 55 to 70 miles. Area 9,600 square miles.

26. The coast presents for the most part a belt of low and alluvial land from 10 to 20 miles wide; and beyond this, presenting an abrupt face, rises a broad plateau 2,000 feet high, and crested with numerous volcanic peaks, members of the range extending in line from Mexico to Peru. Between this and the great primitive chain of the Cordilleras lies a broad valley, in width from 20 to 30 miles, and having a length of more than 100 miles. The coast plateau subsides gradually toward this basin, which is drained by the Lempa, and is unsurpassed for beauty and fertility. Probably the whole of it is underlaid with bituminous coal. Its northern border rests upon the flank of the mountains of Honduras, which tower above it to the height of 6,000 or 8,000 feet, and is comparatively broken and rugged.

27. The volcanoes along the crest of the plateau described as intervening between the valley of the Lempa and the sea, commencing on the side of Guatemala, occur in the following order—Apeneca, Sta Anna, Izalco, San Salvador, San Vicente, Asulutan, Tecapa, Sacatecoluca, Chinemeca, San Miguel, and Conchagua. Of these only two, San Miguel and Izalco, are active.

There are also some others of less note, besides numerous extinct craters, and various volcanic vents called "Infernillos." In the Gulf of Fonseca the series is represented by the volcanic island peak of Tigre.

28. The Lempa is the most important of the rivers of San Salvador, and for a considerable part of its course is a navigable stream. It rises on the confines of Guatemala, at the foot of the high peak of Chingo, and flows in a southeast direction through the entire length of the great basin, when, turning abruptly south, it breaks through the coast plateau and flows a further distance of 50 miles to the sea. Its principal tributaries from the north are the Sumpul, Guarajambala, and Torola; the first and last, rising in opposite directions, form the boundary toward Honduras. The affluents from the north are all comparatively small streams. Its mouth is obstructed by a bar carrying only six feet of water, but by canalling, the main stream may be easily connected with the adjacent navigable estuaries of Jaltepeque and Jiquilesco. The only other rivers of considerable size are the Paza and San Miguel. In common with numerous smaller streams flowing into the Pacific from the volcanic plateau, these rivers take the form of estuaries in passing through the low country bordering the coast, and become navigable for smaller craft.

29. The principal lakes of the country are those called Guija or Guijar in the west, and Ilopango or Cojutepeque near the center; the first, about 15 miles in length by 6 miles in width, discharges itself into the Lempa, of which it may be regarded as a principal source; and the latter, which is of volcanic origin, and probably an ancient crater, is 12 miles long, and in its greatest width 6 miles. It has a small outlet into the river Jiboa, near the base of the volcano of San Vincente.

30. The geological conditions of San Salvador preclude the existence of the precious metals, except in those portions directly dependent on the primitive range of the Cordilleras, or rather on the mountain system of Honduras. The silver mines of Tabanco, Sociedad, and others, in the department of San Miguel, on the confines of that State, have, nevertheless, a wide celebrity; and two leagues from Tabanco are the gold mines of Capetillas, of great richness. The proximity of these to the Gulf of Fonseca is favorable for their future development. Near the village of Petapa are some rich iron mines, and there are extensive forests in the vicinity which serve for making charcoal, but at present less than 700 tons are manufactured annually. The coal of San Salvador is all of the variety called *brown* coal, and is rich in bitumen. Near Ahuachapan, in the extreme west of the State, are several remarkable thermal springs, called "ausolles," emitting a dense white steam from a semi-fluid mass of mud and water in a state of ebullition. Notwithstanding, however, the general volcanic features of San Salvador, it has suffered less from earthquakes than either Costa Rica or Guatemala. The greatest catastrophe that has befallen the State from this cause occurred in April, 1854, when the capital was utterly destroyed, previous to which event the city of San Salvador, in point of size and importance, ranked third in Central America.

31. As an agricultural country San Salvador is pre-eminent. The river basins, not less than the alluvions bordering on the Pacific, are of extraordinary fertility, and eminently adapted to tropical plants. Indigo, sugar, and maize are the present staples of cultivation, and cocoa, coffee, cotton, and tobacco are produced for consumption. On that part of the



INDIAN VILLAGE.

coast termed Costa del Balsamo, and lying seaward of the volcanic range, the whole tract is much broken by spurs and ranges of hills, and thickly covered with forests. It is exclusively occupied by Indians. Their chief wealth is derived from the balsam collected in these forests, and which is known in the markets as the Balsam of Peru. Otherwise the forests produce many valuable woods fit for cabinet work and useful in the arts.

32. In 1855 the population of San Salvador was estimated at 394,000, distributed to the departments in the following proportions:

Departments.	Population.	*Capitals* and Chief Towns.
Cuscatlan	75,000	*Suchitoto*, 6,250; Cojutepeque, 11,500; Ilabasco, 4,500, etc.
Sonsonate	75,000	*Santa Anna*, 9,000; Sonsonate, 8,000; Pt. Acajutla, etc.
San Salvador	80,000	San Salvador, 30,000 (?); Pt. La Libertad, Tonocatepeque.
San Miguel	80,000	*San Miguel*, 7,000; Sta Maria; Pt. La Union, 2,000, etc.
La Paz	28,000	*Sacatecoluca*, 5,000; Pt. La Concordia, etc.
San Vicente	56,000	*San Vicente*, 8,000; Sensuntepeque, etc.

—San Salvador has thus 41 inhabitants to the square mile of territory, and is consequently the densest populated state of Central America.

33. The people are chiefly engaged in agricultural pursuits, and generally cultivate their little plots in the vicinity of their cottages. There are but few large estates. Cattle are numerous and of good breeds, and hogs are everywhere abundant. Sheep do not succeed well. The only manufactures are of the common articles of domestic consumption, consisting chiefly of coarse cotton goods, cutlery, and ironware. Some of these were formerly in demand throughout the adjoining States. Mining is little attended to, but at various times has been successfully engaged in. The foreign commerce of the country, however, is comparatively large. In 1855 the exports were valued at $698,218, and consisted of indigo, ores, balsam, skins, rice, sugar, etc. The imports for the same year were valued at $765,324. The principal ports are La Union on the Gulf of Fonseca, and Libertad, Acajutla, and La Concordia on the Pacific.

34. San Salvador is a republic, with a president elected for two years, and a legislature of twenty-five members elected annually. The judiciary consists of a supreme and other inferior courts. All citizens of the State are eligible to vote, and also citizens of other Central American States resident within the Republic. The army is small, and mainly contingent. The Apostolic Roman Catholic is the only religion recognized. Education is not general, but there are schools in all the large towns, and at San Salvador, before its destruction, a university.

35. The revenue of the State is derived from duties on imports and the proceeds of the tobacco and rum monopolies. For the year ending 30th September, 1854, the receipts from all sources amounted to $600,188, and the total expenditures to $579,460, of which $310,901 were paid on account of the domestic debt. The receipts into the treasury for the years 1849 '50, '51, '52, and '53 amounted respectively to $397,405, $353,127, $402,619, $454,113, and $476,951, and the expenditures to $384,227, $342,453, $385,836, $415,207, and $467,680. The domestic debt of the State, including bonds in circulation, in 1853, amounted to $350,000, and the foreign debt to $325,000.

36. San Salvador contains six principal towns, 142 smaller towns, and 62 villages. The principal and some of the large towns are named in the preceding table. San Salvador, the capital, before its destruction in 1854 was the most important, and contained 25,000, and including the neighboring villages 30,000, inhabitants. It is situated on the Rio de Asalhuate, a small affluent of the Lempa, in latitude 13° 44′ and longitude 89° 8′, and in a hill-circled plain, 2,115 feet above the sea. The climate is delightful, and the mean temperature only 76° Fahr. The hills are covered with verdure the year round. Three miles west is the great volcano of San Salvador, approximately 8,000 feet high. The city itself, like all other Spanish towns, covered a large area. The houses were built low, with thick walls, and each around an inner court, planted with trees and frequently containing a fountain. It was the seat of a bishopric, with a large cathedral and 8 or 10 churches, and of a flourishing university. Two aqueducts supplied the city with water. It had a considerable and improving trade, and was connected with La Libertad, its port, by a cart-road 22 miles long. The markets were well supplied from the numerous Indian villages around it. On the 16th April, 1854, the whole city was prostrated by an earthquake; and the government soon after removed to Cojutepeque, in Cuscatlan, a large town a few miles north of the lake of the same name, and about 18 miles east of San Salvador.

37. Suchitoto, chief town of Cuscatlan, is built on the south bank of the Lempa, about 20 miles north of San Salvador. To the west, in Sonsonate, are the towns of Santa Anna and Sonsonate, the former situated on the coast plateau and the latter in the balsam region. In the mountains near Santa Anna there are rich iron mines, and around it extensive plantations of indigo and sugar. The Indians of the neighborhood of Sonsonate are industrious, and, besides collecting large quantities of balsam, manufacture beautiful mats. Both these towns trade through Acajutla, the western port of the State, exporting sugar and balsam chiefly to Peru.

38. Twenty miles east of San Salvador is the town of San Vicente, which is built on the Rio Acajuapa, an affluent of the Lempa, and about 10 miles north of the volcano of San Vicente. In the vicinity excellent tobacco and indigo are grown. Sacatecoluca, in La Paz, is situated on the plain between the Lempa and Jiboa, and about 12 miles northeast of the new port of La Concordia. San Miguel, on the west side of the river of the same name, is chiefly noted for its fairs, the most important of which is that held in November, after the indigo harvest. To the northeast there are rich silver mines.

39. La Union, on the Gulf of Fonseca, is the principal port, and receives nearly all the imports of the State. Its situation, under the lee of the volcano of Conchagua, which shuts it off from the sea-breezes, is unfavorable, and gives it a higher temperature than any other point on the bay; and on this account it is proposed to remove it to a point near the entrance of the bay, called Chiquirin, where the sea-breezes reach, and where the depth of water is such as to enable the largest vessels to lie close in-shore. Until this change is effected, the tendency will be to concentrate commerce at the free port of Amapala, on Tigre Island. The ports of La Libertad and Acajutla are merely roadsteads.

STATE OF HONDURAS

40. Honduras lies between latitudes 13° 10′ and 16° 30′ north, and longitudes 83° 10′ and 89° 30′ west. The Caribbean Sea bounds it on the north and northeast, the State of Nicaragua on the southeast and north, the Gulf of Fonseca and the State of San Salvador on the southwest, and the State of Guatemala on the northwest. Its greatest length, east and west, is about 400 miles, and its breadth, north and south, varies from 60 to 200 miles. Area 39,600 square miles.

41. Honduras has a coast-line extending along the Gulf of Honduras and Caribbean Sea from the mouth of the Tinto to that of the Segovia or Wanks about 400 miles long. The principal islands off this coast are Roatan, Guanaja or Bonaca, Utilla, Helena, Morat, etc., which were seized by the English in 1852, and administered as the "Colony of the Bay Islands;" but they were restored in 1856 to the sovereignty of this State, subject, however, to their acquired municipal institutions. On the Gulf of Fonseca it has a coast-line of some 60 miles, extending between the Rio Negro and the Rio Goascoran, the former separating it from Nicaragua and the latter from San Salvador.

42. The general aspect of the whole country is mountainous, the ranges radiating from the common base of the Cordilleras. This great chain, which may be regarded as the foundation and support of the continent, does not in Honduras approach within 50 miles of the Pacific; nor does it throughout maintain its general character of an unbroken range, but in its course sometimes turns back upon itself, forming interior basins or valleys, within which are collected the head waters of the larger streams that traverse the country to the Atlantic. Nevertheless, viewed from the Pacific, it presents the general appearance of a great natural wall, with a lower range of mountains, relieved by volcanic peaks of wonderful regularity of outline, intervening between it and the sea. This range, within Honduras itself, is wanting, but its place is supplied by the high islands of volcanic origin in the Gulf of Fonseca.

43. The course of the great Cordillera proper is generally southeast and northwest, but serpentine, and at one point at least interrupted. Starting from the high plateau of Guatemala, this range pursues a course nearly east until it reaches Honduras, where it is deflected to the southeast, while a higher spur or range, not inferior in elevation to the Sierra Madre, runs off east-by-north to the Bay of Honduras, and on the coast is between 7,000 and 8,000 feet in height. Along its northern base flows the Montagua, which falls into the Gulf of Honduras, and at its feet, on the south, the Chamelicon, terminating near the Ulua.

44. Following the course of the Sierra Madre, we find it involving itself in the tangled knot known as the Mountains of Selaque. Intermediately lies the large valley or plain of Sensente, in which the Santiago takes its rise. The mountains of Selaque constitute one of the principal centers of elevation in Honduras, their summits rising 8,000 and 10,000 feet above the sea. Next in order comes the valley of the Rio Santa Barbara, one of the principal affluents of the Santiago, and which, like that river, has its sources in the high plains, the principal of which is the valley or plain of Otoro, only separated from that of Comayagua by the group called the Montecellos. From this plain, extending north to the Atlantic, is the



CONE AND PLAIN OF COMAYAGUA.

valley of the Rio Humuya, and extending due south to the Pacific is the valley of the Rio Goascoran—altogether constituting a great transverse valley reaching from sea to sea, and which, considered in reference to the facilities it offers for the construction of a railroad, is the most remarkable topographical feature of the State.

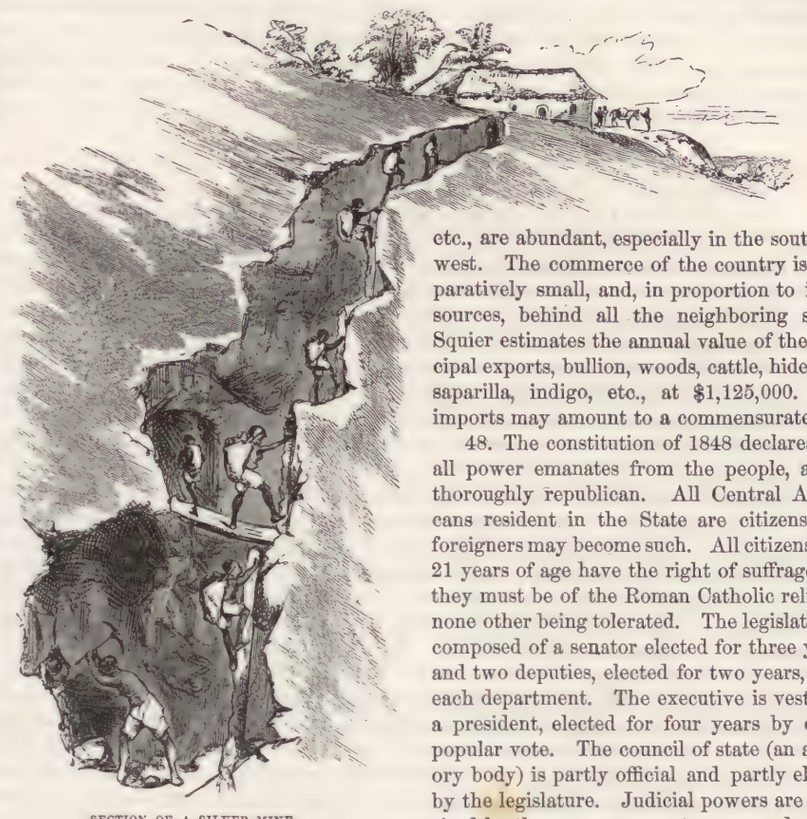
45. Passing the plain of Comayagua, the Cordilleras are resumed in a group of high mountains, running about 80 miles north and south, and giving off other ranges from which many rivers flow, and among these the river Wanks or Segovia, reaching the sea at Cape Gracias à Dios. The northern coast presents a diversified surface; a portion is flat and covered with vast growths of timber. Among the precious woods mahogany is most abundant. It would be a great mistake to suppose this coast to be of the same character with that known as the Mosquito shore, where the land is low and filled with swamps and lagoons. The mountains, indeed, often come down to the sea or rise not very far inland. Those of Omoa shadow over the Bay of Amatique, and others are conspicuous landmarks from the ocean, which breaks almost at their feet.

46. Honduras is divided into seven departments, and these into administrative districts. The approximate population in 1855 was 350,000, distributed as follows:

Departments.	Area, sq. m.	Population.	Capitals and Chief Towns.
Comayagua	4,800	70,000	COMAYAGUA, 8,000; Las Piedras, San Antonio Opoteca, Espino, Goascoran, Caridad, etc.
Tegucigalpa	1,500	60,000	*Tegucigalpa*, 12,000; Yuscuran, Cedros, San Antonio Mineral, Yuguare, Agalteca, etc.
Choluteca	2,000	50,000	*Nacaome*, 2,000; Choluteca, Texiguat, Amapala, Langue, Pespiri, Savana Grande, etc.
Santa Barbara	3,250	50,000	*Santa Barbara*, 6,000; Yojoa; Omoa, 2,000; San Pedro Sula, Quimistan, etc.
Gracias	4,050	55,000	*Gracias*, 1,500; Sta Rosa, Intibucat, Sensenti, Corquin, San José, Ocotepeque, Cololaca, etc.
Yoro	15,100	20,000	*Yoro*, 3,000; Olanchito; Trujillo, 2,500; Negrito, Jocon, Sonaguera, etc.
Olancho	11,300	45,000	*Juticalpa*, 10,000; Catacamas, Campamiento, Silca, Monte Rosa, Yocon, Laguata, etc.

—the population in Yoro and Olancho is calculated exclusive of the Indian tribes; and, indeed, nearly the whole of these departments are without political organization.

47. The most important natural productions are those of its forests. The agriculturist produces maize, rice, some wheat and barley, frijoles, plantains, and various fruits and vegetables. In the eastern district, Gracias, fine tobacco is cultivated. Cattle rearing, however, is the great employment of the people, and vast herds are fed in the interior. Mules are the usual beasts of burden. Manufactures are confined to a few coarse articles of domestic necessity; but there is considerable labor expended in mining. Gold, silver, copper, lead, iron,



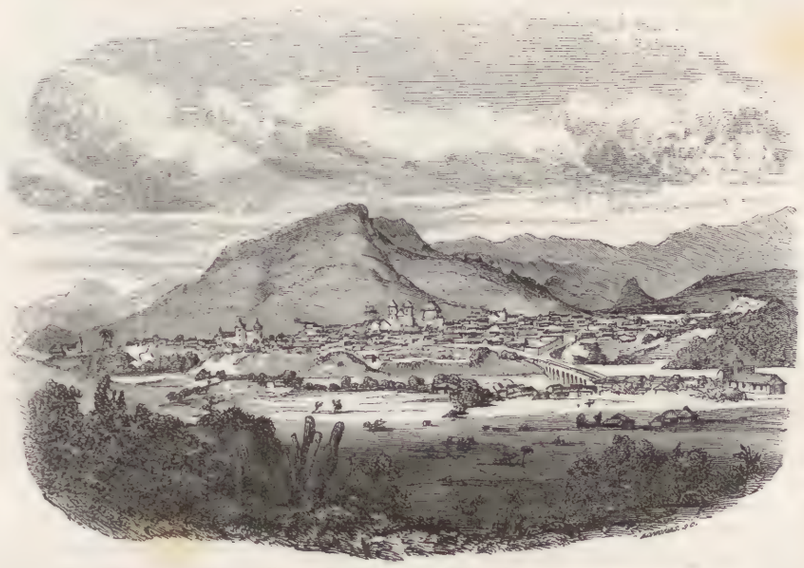
SECTION OF A SILVER MINE.

etc., are abundant, especially in the south and west. The commerce of the country is comparatively small, and, in proportion to its resources, behind all the neighboring states. Squier estimates the annual value of the principal exports, bullion, woods, cattle, hides, sarsaparilla, indigo, etc., at $1,125,000. The imports may amount to a commensurate sum.

48. The constitution of 1848 declares that all power emanates from the people, and is thoroughly republican. All Central Americans resident in the State are citizens, and foreigners may become such. All citizens over 21 years of age have the right of suffrage, but they must be of the Roman Catholic religion, none other being tolerated. The legislature is composed of a senator elected for three years, and two deputies, elected for two years, from each department. The executive is vested in a president, elected for four years by direct popular vote. The council of state (an advisory body) is partly official and partly elected by the legislature. Judicial powers are exercised by the supreme court, composed of two sections, and sitting respectively at the capital and Tegucigalpa. Capital punishment is abolished. The departments are under chiefs named by the executive. Honduras has two universities, at Comayagua and Tegucigalpa, and about 400 various schools, with an aggregate of 10,000 scholars. The only public newspaper is the official Gazette. The expenses of the government are about $160,000 a year; the foreign debt $350,000, but there is also a domestic debt of considerable amount.

49. Comayagua (Valladolid), the capital, is situated in latitude 14° 28′ and longitude 87° 39′, and about midway between the oceans. The line of the proposed railroad from Puerto Caballos to Amapala passes through it. It was formerly a city of 18,000 inhabitants, but was destroyed during the revolution. The public buildings are the cathedral, university, several churches, a hospital, etc. The plain, on the southern edge of which it stands, is one of the most fertile parts of the State.

50. Tegucigalpa is the largest and finest city of the State. It stands on the right bank of the Choluteca, in an amphitheater among the hills, and is substantially and regularly built. It has a cathedral, university, mint, and six churches. The trade of Tegucigalpa was formerly



CITY OF TEGUCIGALPA.

carried on through Omoa and Trujillo, but it is now generally directed to Amapala, in the Gulf of Fonseca. Nacaome is built on the river of the same name, eight miles from its mouth. Choluteca, with 4,000 inhabitants, is the nominal capital of the department of the same name, but Nacaome has long been the seat of justice. The free port of Amapala, on the island of Tigre, falls within its jurisdiction. This is the most important port between San Francisco and Valparaiso, and has rapidly risen in population.

51. The department of Santa Barbara, besides its capital of the same name, contains the capacious harbor of Puerto Caballos (latitude 15° 49′ and longitude 87° 57′) and the small but

secure port of Omoa (latitude 15° 47′ and longitude 88° 3′), both on the Gulf of Honduras. Puerto Caballos is the proposed northern terminus of the Honduras Interoceanic Railroad. Juticalpa is a large town on a tributary of the Rio Patuca. This river is navigable as far as the Puerto de Delon, within a few leagues of Juticalpa, and affords an easy means of communication to the Atlantic. Trujillo is situated on the west shore of a noble bay, formed by the projecting land of Punta Castilla. Latitude 15° 55′ and longitude 86°. In former times it was a place of importance and carried on a flourishing trade. It is now much reduced, and but a ruin of its ancient greatness.

STATE OF NICARAGUA.

52. Nicaragua is included between latitudes 9° 30′ and 15° 10′ north, and longitudes 83° 20′ and 87° 30′ west. It is bounded north by Honduras and the Gulf of Fonseca, east by the Caribbean Sea, south by Costa Rica, and west by the Pacific Ocean. Area 49,500 square miles. Within these boundaries are included the Mosquito Shore (20,000 square miles), now claimed by Great Britain for the Mosquito Indians, and the department of Nicoya or Guanacaste (3,000 square miles), claimed by Costa Rica. A direct line from the southern extremity of the peninsula of Nicoya to the mouth of the Wanks River measures about 380 miles; the width of the country between the waters of the Pacific and those of the Atlantic varies from 120 to 240 miles.

53. If an accurate map of Central America existed, it would exhibit in this State a separation of the great chain of the Cordilleras into two divergent ranges, of less general height than the great ridge itself, and having occasional partial interruptions. This divergence occurs in the northern department of Segovia—one branch extending due southeast toward the Atlantic, its outposts coming down to the very shore, and the main ridge crossing the San Juan about 50 miles above its mouth. At its northern base, and nearly parallel to it, flows a large and long stream, the Rio Escondido or Blewfields. This range resumes its course upon the southern shore of the San Juan, but now bears nearly due south, connecting with the Pacific range on the elevated regions of Costa Rica. The Pacific range follows the general direction of the coast, sometimes rising into lofty volcanic cones, but generally sustaining the character of a high ridge, and in places subsiding into low hills and plains. It preserves a nearly uniform distance from the sea of from 10 to 20 miles, and hence no considerable streams fall into the western ocean. Its course seems to have been the principal line of volcanic action, and the lofty cones Viejo, Santa Clara, Axusco, Momotombo, Momobacho, Ometepec, Madeira, Orosi, and Abojado, belonging to this range, form remarkable features in the scenery. The two ranges here referred to form, with their slopes, a great interior basin, not far from 300 miles long by 150 miles wide, consisting, in a great part, of broad and fertile plains. The waters of this region fall into the lakes Managua and Nicaragua, of which the San Juan is the only outlet.

54. The Lake Managua approaches at its nearest point to within four or five leagues of the Pacific, from which it is separated on the south by the range already described; but between its northern extremity and the sea there are only the broad and magnificent plains of Leon and El Conejo, in the midst of which, with all the regularity of pyramids, rise the volcanoes Axusco, Telica, and El Viejo. It is a beautiful sheet of water, from 50 to 60 miles long by 35 miles in its greatest width, very deep, and bordered by the grandest scenery. Lake Nicaragua, however, is the great feature of the country, and is unquestionably one of the finest bodies of water on the continent. Its greatest length is about 120 miles and its breadth from 50 to 60 miles. Its waters shoal gradually, but at some points vessels of the largest class may approach close to shore. The depth, except in the immediate vicinity of its outlet, is, for all purposes of navigation, ample, ranging from 8 to 20 and even to 40 fathoms. The altitudes of the two lakes are respectively 156 and 128 feet above the sea; and they communicate by the river Tipitata, about 25 miles long, but broken by rapids.



LAKE NICARAGUA.

55. The sole outlet of the basin and of these lakes is the San Juan, debouching into the Atlantic at the well-known port of the same name. This river is certainly a magnificent stream, but its volume varies greatly at different seasons. It is about 90 miles long, and in its course receives the San Carlos and Serapiqui, both rising in the highlands of Costa Rica. The streams flowing from the north are comparatively small. Its banks, for 20 miles from the lake, and also for a like distance from the sea, are low, and covered with palms and canes. Intermediately the banks vary from 6 to 20 feet high, and are densely wooded, and sometimes the hills come down to the streams. At the mouth of the San Carlos there are hills 2,000 feet high, and the river is much contracted. The width of the river, indeed, varies from 100 to 400 feet, and its depth from 2 to 20 feet, with an average volume equal that of the Connecticut River. This river, in connection with Lake Nicaragua (and a short land route across the isthmus separating the lake from the Pacific), is now navigated by steamboats, and forms a commonly used transit route between the two oceans.

56. The whole eastern coast is low and flat, in the north continuous, but south more or less broken by deep lagoons and bends in the shore line. It is inhabited by scattered tribes of Mosquito Indians, whose chief settlement is at the mouth of the Blewfields River, in the lagoon of the same name. They number only 6,000 or 7,000 souls, and are nominally under a king, whose authority is recognized and protected by the government of Great Britain.

57. The climate of all the State may be said to be salubrious but is much varied. In the mountain districts the temperature is mild as compared with the coast regions, where it is hot and rather humid. The changes of season occur with great regularity; but the rains often continue a month longer here than in other parts of Central America, and the quantity during the season is greater; nor are occasional showers, out of the periodical limit, unfrequent between the lakes and the Pacific, but these are of benefit rather than injury to the cultivated lands. The soil throughout the occupied districts is very fertile, and produces in great variety intertropical vegetation. Wild animals are few in number. Fish are plentiful both in the lakes and rivers, and the crocodile is common. Along the coasts pearls are found; and in the interior gold and silver, with copper and other minerals, are said to be widely distributed.

58. Nicaragua is divided into five departments. The population, in 1855, was estimated at 257,000, distributed thus:

Departments.	Population.	Capitals and Chief Towns.
Meridional	20,000	*Rivas* or Nicaragua, 8,000; San Juan del Sur.
Oriental	95,000	*Managua*, 12,000; Masaya, 15,000; *Granada*, 10,000.
Occidental	90,000	Leon, 30,000; *Chinandega*, 11,000; C. Viega, 3,000; Realejo, 1,000.
Septentrional of Matagalpa	40,000	*Matagalpa*, 2,000; Achuapa, 500.
Septentrional of Segovia	12,000	Segovia or Ocolal, 8,000.

The civilized Indians and the mixed races together form at least four fifths of the inhabitants, while the whites or descendants of the Spaniards constitute less than a tenth of the whole. Most of them live in towns. These numbers are exclusive of the eastern coast Indians.

59. Nicaragua, in its fertile soil and rich forests, has an abundance of natural wealth; but the indolence of the people gives little promise of its development. Agriculture, indeed, is in



PLAIN OF LEON.

its lowest stage, and in almost every quarter the roads are insufficient, while ox-carts are the principal means of communication. An industrious people might produce a vast surplus for export as well as for the supply of an increased population. Maize and frijoles are the staples of cultivation and the chief food in use; and sugar, indigo, cotton, cocoa, and tobacco are all grown, but, except indigo, not to any great extent. Indigo, Nicaragua and Brazil woods and some other timber and dye-woods and hides are exported.

60. The annual value of the commerce of this State is not large, and may be set down (imports and exports) at $1,100,000. Its chief wealth is in cattle, which are raised in large numbers, especially on the plains on the eastern side of the lakes. The principal port on the Atlantic is San Juan, through which also Costa Rica exports some produce, and it is also the initial point of the interoceanic route. Manufactures are confined to the coarser goods required for home consumption. The chief articles made are coarse cotton and woolen cloths, etc.

61. Nicaragua is nominally a republic, with an elected president and legislature.

62. Leon, the capital, is situated on the road which leads from the best cultivated districts to the harbor of Realejo, in latitude 12° 26′ and longitude 86° 52′. The city occupies a considerable area, and contains a cathedral, several churches, a university, etc., and with its suburb, Subtiaba, is said to contain 30,000 inhabitants. Realejo is the best harbor on the Pacific, and has a considerable trade. Chinandega, northeast of Realejo, is also a large town. Granada is the principal port on Lake Nicaragua, as Managua is on the upper lake. Granada is situated on the northwest shore, and formerly carried on a trade with Jamaica, *via* the San Juan.



ENTRANCE TO THE PORT OF REALEJO.

Managua, on the south bank of Lake Managua, is also a considerable place; and south of it is Masaya, a still larger town. These towns are engaged in commerce with the adjacent popu-

ous country and in the manufacture of various articles of domestic requirement, in which they display much skill. The inhabitants are mainly Indians.

63. Rivas or Nicaragua is built some two miles from Lake Nicaragua, and is connected with its suburb and lake port, San Jorge, by a good road. The district is noted for its cacao and grapes, and is one of the most fertile. San Juan del Sur, on the Pacific, southwest of the town of Nicaragua, is an insignificant place, and has only acquired importance since its selection as the Pacific port of the transit route. The harbor is small but convenient.

64. San Juan del Norte, at the mouth of the river of the same name, though called a free port, is, in reality, a port of Nicaragua. It is the only good harbor on the Atlantic side of the State. The town is a miserable collection of huts; but on the opposite side of the river numerous improvements have been made for the accommodation of the transit company. In the department of Septentrional, which lies next to the Honduras border, are the towns of Matagalpa and Segovia. The first-named, in the southeast, is a small place of some 2,000 inhabitants. Segovia, on the river Segovia or Wanks, contains 7,000 or 8,000 inhabitants, or about two thirds the population of the department. The country surrounding these towns is fertile and healthy, and abounds in gold and other minerals. Boats descend the river to the sea. Between this department and the coast reside numerous Indians, who live in villages and are partly civilized. These are distinct from and do not intermarry with the Mosquitos of the coast.

STATE OF COSTA RICA.

65. Costa Rica is situated between latitudes 8° 5′ and 10° 52′ north, and longitudes 82° 15′ and 85° 25′ west. It is bounded north by Nicaragua, east by the Caribbean Sea, south by the federal state of Panama, and southwest and west by the Pacific Ocean. A line drawn from Point Burrica to the southern outlet of the San Juan measures nearly 200 miles. The average width is about 80 miles. The area is 13,590 square miles.

66. Both the eastern and western coasts have a general northwest and southeast direction; but they differ considerably in character. Along the Caribbean Sea the coast is bordered by a narrow plain, and affords no large or secure harbors. Matina, the port of Cartago, is the best. The western coast is much more broken. At its southern extremity is the wide Golfo Dolce; farther north is Port Mantas, and beyond that is the bay formed by the Rio Estrella. More important is the Gulf of Nicoya—its entrance faces south, and its waters penetrate the land for 70 miles and afford good shelter. Punta de Arena, on the eastern side of the gulf, is one of the best harbors on this part of the Pacific, and is the port of San José, the capital. Farther north is Culebra Bay, and several smaller ports.

67. The surface comprises, for the most part, a table-land, with an elevation of upward of 2,000 feet. From the range of Veragua, east of the plain of Chiriqui, which connects the table-lands of Veragua and Costa Rica, there stretches a considerable number of mountain peaks, in a large part lofty and volcanic. Some of these attain an elevation of 10,000 feet, and the volcano of Cartago is said to be 11,480 feet high. Toward the Caribbean Sea the



VOLCANIC REGION OF COSTA RICA.

descent is, for the most part, abrupt, but terminating from 20 to 30 miles from the sea, between which and the bases of the hills is a low, level, and marshy tract, covered with forests and subject to floods. Toward the Pacific the descent is more gradual, while the high land advances much nearer to the sea and descends to it in a series of terraces. A continuous range of volcanic hills extends from the northwestern corner of the table-land of Costa Rica around the western side of Lake Nicaragua. The northeastern extremity of the country, toward the San Juan, subsides gradually into plains.

68. The only important river is the San Juan, which, however, belongs mostly to Nicaragua. The other rivers which enter the Caribbean Sea are very numerous, but all have short courses, and none of them are navigable. The principal are the Matina, the Purissima, and the Tortuga. The rivers which fall into the Pacific are also short. The Estrella, the Arena, and Baranca are among the most important. Several small lakes occur on the table-land.

69. The climate, on the whole, is more regular and healthy than in any other state of Central America. The soil is of varied character, and in many parts very fertile. On the table-land there are few forests, but on the lower declivities, and especially on the eastern coast, they are very abundant. Brazil-wood, mahogany, and cedar are exported. Around the city of Cartago and on the western parts wheat is cultivated to some extent. Maize is grown much more extensively, and is exported somewhat largely to Chile and Peru. Coffee is, however, the staple, and is of fine quality. In 1856 the exports amounted to 80,515 quintals. Tobacco and sugar are also important staples, and cacao, indigo, etc., are grown. Cotton, the vine, and cochineal are destroyed by the heavy rains. Agriculture, however, is in a very backward state, and the capabilities of the soil are very far from having been made fully available. There are some good pasture-lands, and in the south cattle form an important part of the wealth of the people; and sheep are tolerably abundant on the table-lands. Wild animals are not numerous. Along the coasts and in the rivers fish are plentiful. In the Gulf of Nicoya pearls and the pearl shells are obtained. Among the metallic products gold is the most important. Mines are worked in the northwest. Coal is found in the low districts about the Chiriqui Lagoon, and is worked by a company from New York.

70. Costa Rica, according to a census taken in 1851, has, including 5,000 wild Indians, 100,174 inhabitants, distributed as follows:

Departments.	Population.	*Capitals* and Chief Towns.
San José	31,749	San José, 16,000; Union, Pacaca, Escazu, Asseri.
Cartago	23,209	*Cartago*, 5,000; Jurrialba, Cot, Quircot, Tobosi, Orosi.
Heredia	17,289	*Heredia*, 10,000; Barba.
Guanacaste	9,120	*Guanacaste*, 3,000; Canas, Bagaces, Sta Cruz, Nicoya.
Alajuela	12,575	*Alajuela*, 3,000; Esparza.
Punta Arenas	1,240	*Punta Arenas*, 500.

—in 1850 the number of births was 4,769, and of deaths 1,786—increase, 2,983, and hence, at the same rate of increase, the present population must be at least 115,000. Squier estimated it at 125,000 in 1855. There is a greater proportion of the white race in Costa Rica than in any other of the Central States. The half breeds and mulattoes are also relatively numerous, and are chiefly settled on the western side of the table-land. The eastern side of the country is chiefly occupied by the Indians. In religious faith the whole people belong to the Roman Church.

71. The cultivation of coffee and tropical products generally is the national pursuit; but some branches of manufacturing are engaged in, and the commerce of the State is comparatively large. The principal goods manufactured are cotton fabrics, hats, earthenware, furniture, wooden utensils, etc. The exports consist of coffee, hides, cabinet-woods, sarsaparilla, mother-of-pearl, and a small quantity of pearls. Grain, fruit, drugs, cattle, and various miscellaneous articles also form a part of the exports. The total annual value is estimated at upward of $1,350,000. All shipments are made from the Pacific ports, and mostly from Punta de Arenas, and to the northern coasts of Central America, Chile, Peru, etc. The imports, chiefly from Great Britain, consist principally of cotton fabrics, woolens, hardware, etc., and amount to about $1,200,000 a year.

72. The government is exercised by a president, elected for six years, and a legislative assembly, consisting of 12 deputies, elected for three years. The chief court of justice is the Tribunal of San José, which is presided over by seven judges. The militia numbers 7,187 men, from which 352 are drafted for garrison duty. There is no navy. The revenue, derived principally from a duty on tobacco and spirits, land sales, stamps, etc., amounted in 1851 to $257,692, but in 1856 had risen to $655,028—the expenditures for the same years amounted to $144,577 and $471,474 respectively. The State has little or no debt, either foreign or domestic, and it has happily enjoyed external and internal peace for several years.

73. San José, the present capital, stands on an elevated table-land (latitude 9° 46′ and longitude 84°), 4,500 feet above the sea. It is a modern city; but though the seat of government and a bishop's see, it has no public buildings of importance. It is, however, a busy town. It communicates by a road, 72 miles long, with its port, Punta de Arenas, which is also a thriving place, and the principal port of the State. Cartago, the original capital, about 16 miles east-by-south, and at the foot of the volcano of the same name, was almost ruined by an earthquake in 1841—seven out of its eight churches and 3,000 houses having been destroyed by that catastrophe. Alajuela, nearly midway between San José and Punta de Arenas, is a place of considerable trade, and the market for an extensive sugar-growing district. Villa Vieja, about seven miles west from San José, is also a place of some trade. The other towns named in the above table are of more or less consequence.



CATHEDRAL.

WEST INDIAN ARCHIPELAGO.

1. The West Indian or Columbian Archipelago consists of numerous large and small islands, lying in the wide interval of sea between the south coast of North America and the north coast of South America.

2. These islands extend in a curved line first east and then south, beginning near the southern part of the United States and terminating at the northeast corner of Venezuela, near the mouth of the Orinoco River. On the east and north they are bounded by the Atlantic Ocean, on the south by the Caribbean Sea, and on the west by the Gulf of Mexico. They are situated between the 59th and 85th degree of longitude west, and between the 10th and 28th degree of latitude north.



SCENE IN WEST INDIES.

3. Geographers have distinguished these islands into three arbitrary groups, viz., the Lucayos or Bahama Islands, the Greater Antilles, and the Lesser Antilles or Caribbean Islands.

4. The Lucayos or Bahama Islands consist of fourteen principal and an infinite number of smaller islands and cayos, extending in line off the east coast of Florida to the island of Santo Domingo, a distance of 750 miles. They are chiefly of coral formation—low, flat, and scantily covered with soil, and most of them uninhabited. Three fourths of the group lie north of the tropic. Their climate is mild and agreeable, free alike from scorching heats farther south, and from the low grades of temperature incident to more northern regions.

5. The Greater Antilles, extending from the Gulf of Mexico eastward toward the Atlantic, consists of the large and fine islands of Cuba, Santo Domingo, Porto Rico, and Jamaica. These are all situated between the 17th parallel and the tropic of Cancer, and lie chiefly in the extreme northern portion of the torrid zone.

6. The Lesser Antilles or Caribbean Islands, so called from the Caribs or people inhabiting them when first discovered, form a long chain extending in a curved line from Porto Rico to the Gulf of Paria. These are usually called by American geographers the Windward Islands. A smaller and more scattered group, ranging along the coast of Venezuela, belonging also to this section, is contradistinguished as the Leeward Islands. English writers, however, generally apply the latter name to the more northerly part of the first group, extending from Dominica northward to the Virgin Islands, restricting the appellation of Windward to those between Dominica and the island of Trinidad. The position of these islands is between the 10th and 18th parallels, and consequently in the southern half of the northern section of the torrid zone.

7. The principal Islands, arranged in their geographical order, are named in the following table, with their area in square miles and their population from the latest censuses or estimates:

Islands.	Area, sq. m.	Population.
Bahama Islands—		
Bahamas proper	5,094	27,519
Turk's Island and Caicos	430	4,428
Greater Antilles—		
Cuba	47,278	1,009,060
Hayti	27,690	708,5 0
Porto Rico	3,865	562,134
Jamaica	6,250	377,433
Cayman Islands	260	1,760
Lesser Antilles: Windward Islands—		
Virgin Islands	219	46,312
Anguilla	34	3,052
St. Martin's	33	6,612
St. Eustatius	97	1,932
Saba	16	1,663
St. Bartholomew	25	9,000
Barbuda	72	1,707
St. Christopher	68	28,177
Lesser Antilles: Windward Islands (*continued*)—		
Nevis	21	9,601
Antigua	108	37,757
Montserrat	47	7,653
Guadaloupe	529	34,574
Marie-Galante	59	12,749
Deseada	17	2,568
Dominica	274	22,061
Martinique	382	121,478
St. Lucia	296	24,516
St. Vincent	132	30,128
Barbadoes	166	135,939
Grenada	155	32,671
Tobago	144	13,208
Trinidad	2,020	63,645
Lesser Antilles: Leeward Islands—		
Curaçoa, etc.	244	22,063
Margarita, etc.	441	26,359

The total area of the above and their numerous dependent islands not mentioned may be assumed at 100,000 square miles, and the aggregate population at 3,500,000.

8. All the above islands, except Santo Domingo, which is divided into the two independent governments of Hayti and Dominica, and the island of Margarita, which belongs to Venezuela, are held as colonies of European nations. *Spain* holds Cuba and Porto Rico; *Great Britain*, the Bahamas, Jamaica, and all the Lesser Antilles not held by France, Holland, Denmark, and Sweden; *France*, Guadaloupe with its dependencies, Martinique, and part of St. Martin's; *Holland*, St. Eustatius, Saba, and part of St. Martin's, and also Curaçoa and its dependencies; *Denmark*, St. Thomas, St. John, and Santa Cruz; and *Sweden*, St. Bartholomew.

9. Mountains of considerable height diversify most of the islands of the Greater and Lesser Antilles, causing them to resemble the elevated remains of a portion of the continent which some convulsion of nature has overwhelmed. Generally speaking, their interior is composed of a range or group, sometimes of little more than a single mountain, the slopes of which and the plain at the base constitute the island. The most elevated peaks of the Greater Antilles exceed 8,000 feet above the sea-level, while the higher summits in the Caribbean Islands range in elevation from 3,000 to 4,000 feet. Most of these eminences have evidently been the seat of volcanic action, but, with the exception of the Souffrière of Guadaloupe, which still exhibits some perturbations, action seems to have ceased in all, or at least is now dormant. Numerous streams descend from these heights which, though they do not attain to the magnitude of rivers, yet serve to irrigate the fine plains and valleys which they traverse, and form a main cause of the fertility for which they are distinguished.

10. The Bahama Islands, as far as known, are composed of limestone rock, which in many places display magnificent caves. In Cuba the lower regions are composed of secondary formations, through which the rocks of the primary era rise in masses of greater or lesser extent. The Copper Mountains seem to be chiefly formed of mica slate, but in the hills toward the west, pure limestone and argillaceous sandstone are the predominating developments. The Blue Mountain range of Jamaica is composed of transition rocks, as graywacke, associated with trap rocks. Resting on these, at a lower and lower level, as red sandstone and conglomerate, white marl and limestone, in some places intermingled with traps and porphyries. The flat country on the south coast of the island is alluvial and diluvial. An extinct volcano exists in Black Hill.

11. The Caribbean Islands, geognostically considered, form two groups: an eastern or exterior, of Neptunian formation, and a western or interior, of volcanic formation. The volcanic islands appear to stand in immediate connection with the primitive ranges of Caracas. This range of volcanic islands extends onward in a curved direction, and terminates in a new primitive chain at that point where the range has again assumed the same direction as the Silla of Caracas. The Blue Mountains of Jamaica, the granite mountains in the southern part of Hayti and Porto Rico, run parallel with the Silla, and they, as appears on inspecting the map, are equally a continuation of the volcanic series of the smaller Antilles, as these are of the Silla. None of these are very lofty, the highest scarcely attaining an elevation of 6,000 feet above the level of the sea. The volcanic islands are Grenada, St. Vincent, St. Lucia, Martinique, Dominica, Montserrat, Nevis, St. Christopher, and St. Eustatius. The Neptunian islands, which are low and principally composed of limestone, are Tobago, Barbadoes, Marie-Galante, Grande-Terre, Deseada, Antigua, Barbuda, St. Bartholomew, and St. Martin's.

12. The only island of this group of which a detailed account has been published is Antigua. It contains besides the characteristic Neptunian rocks, also formations of volcanic origin, and hence may be considered as the connecting link between the Neptunian and volcanic islands respectively. The whole northeastern part of the island is composed of a yellowish-white earthy, nearly friable, limestone, which in its upper strata contains helices and bulimas, but in the lower great abundance of cerithiæ, principally inclosed in a silicious bed of a dark color, which is subordinate to the limestone. It appears to belong to the tertiary era, and forms hills from 300 to 400 feet in height. The island is crossed northwest and southeast by a conglomerate which, in a clayey basis, contains many crystals of felspar, abundance of green earth, probably disintegrated augite, and masses of basalt, also of amygdaloidal dolerite or greenstone, lava, hornstone, with impressions of corals and numerous pieces of petrified wood, principally palms and other tropical trees. Trees of the same kind also occur in the silicious beds in the limestone. The rocks of this conglomerate are generally steep toward the southwest, and gently inclined toward the northeast. The limestone evidently rests on this conglomerate. To this follows in the southwestern part of the island a doleritic basalt, which forms the greatest heights. The separation of these rocks is accurately in the direction of the volcanic islands, that is, from northwest to southeast. Hence the island of Barbuda, which is farther removed from the volcanic range, lies entirely in the limestone region. The shells in the limestone differ but little from those of the surrounding sea; but the limestone expands over the whole island, which is nowhere higher than 110 feet above the level. A basaltic cover separates this limestone from the volcanoes; and probably these latter, before reaching the surface, have previously forced their way through the basalt. It occurs again in Tobago. Barbadoes, in its general composition, is very much allied to Antigua, and the same would appear to be the case with St. Bartholomew and St. Martin's. In Deseada, Marie-Galante,

WEST INDIES

SCALE OF STATUTE MILES.
0 40 80 160 240 320

200 Geographical or 230.53 Statute Miles, to an inch.

GULF OF MEXICO
MEXICO
ATLANTIC OCEAN
CARIBBEAN SEA
PACIFIC OCEAN
GREATER ANTILLES
LESSER ANTILLES
BAHAMA ISLANDS
SOUTH AMERICA
CUBA
ISLAND OF HAYTI
JAMAICA
HONDURAS
NICARAGUA
VENEZUELA
Florida Keys
Straits of Florida
Great Bahama Bank
Yucatan Channel
Windward Passage
Mona Passage
Old Bahama Channel
Gulf of Darien
Gulf of Nicoya
Gulf of Fonseca
Gulf of Triste
Gulf of Venezuela
Lake Nicaragua
Lake of Maracaibo
Orinoco River
Eastern Cordillera
Sierra de Santa Marta
Sierra Maestra
Blue Mts.
Cibao Mts.
Cr. Palmira
C. Romano
Cape Sable
Key West
Florida
Salt Key Bank
Abaco I.
Eleuthera
New Providence
NASSAU
San Salvador or Cat I.
First American land discov.d by Columbus 1492
Andros I.
G. Exuma I.
Watling I.
Rum Cay
Long I.
Crooked I.
Mariguana
Caicos I.
Turks Is.
Great Inagua
Pt. Mulas
Caribbean Passage
HAVANA
Batabano
Matanzas
Villa Clara
Cay Romano
Cienfuegos
Cape San Antonio
Trinidad
I. of Pines
Cape Catoche
Sisal
MERIDA
Valladolid
Campeachy
Cozumel I.
Porto Principe
Nuevitas
Manzanillo
Caulo
Santiago de Cuba
Little Cayman
Cape Cruz
Grand Cayman
Pico de Tarquino
Negril Pt.
Montego
Kingston
SPANISH TOWN
Morant Pt.
Portland Point
C. Tiburon
Windward Passage
Gonaives
Gonaive I.
PORTAU PRINCE
Beata I.
SAN DOMINGO
Samana B.
Samana
C. Engano
Old C. Francais
Mona I.
PORTO RICO
SAN JUAN
Virgin Gorda
St. Thomas
St. Croix
Santa Cruz
Vieques
Mona Passage
Saona I.
Mayaguana
San Salvador
Caicos Passage
Turks Island Passage
Anegada
Sombrero
Anguilla Br.
St. Martins Fr. & Dutch
St. Bartholomew Swed.
Eustatius Dutch
St. Christopher British
Nevis
Barbuda Br.
Antigua British
Montserrat British
Guadeloupe French
Desirade French
Marie-galante French
Roseau
Dominica Br.
Martinique French
St. Lucia Br.
Castries
St. Vincent Br.
Kingstown
Barbadoes Br.
Bridge Town
Grenadines
St. George
Grenada British
Tobago British
Trinidad British
Puerto de España
Gulf of Paria
Orinoco River
Delta of the Orinoco
Pt. Barima
Barcelona
Barquisimeto
CARACAS
La Guayra
Puerto Cabello
Valencia
Coro
Tocuyo
Maracaybo
Lake of Maracaibo
Cumana
Margarita
Asuncion
Tortuga
Orchilla
Roques
Blanquilla
Los Testigos
Los Frailes
Curaçoa
Oruba
Pt. Gallinas
Rio Hacha
Santa Marta
Sierra N. de Santa Marta
Peninsula de Paraguana
Carthagena
Herguera
R. Magdalena
R. Cesar
Truxillo
Porto Caballos
Cape Gracias
C. Cameron
Ruatan
Belize
Turneff
Ambergris I.
Chetumal Bay
Rio Dulce
Golfete
Lake Izabal
Omoa
Honduras or Segovia
Comayagua
Gracias
Realejo
Leon
Granada
Managua
Pearl Cays Pt.
Rivas or Nicaragua
Greytown or San Juan
San Juan R.
Costa Rica
San Jose
Chiriqui
Chiriqui Lagoon
Isthmus of Panama
Panama
Bay of Panama
Gulf of Dulce
Cape Garachine
Coiba I.
Cape Mala
Veragua
Cape Blanco
Cape Tiburon
Cape Maysi
Cape Haytien
Cape Isabelique
Cape Beata
Cape Engano
Cape Francois
Cape Negril
Cape Cruz
Cape Tiburon
Cape Maysi
Cape San Antonio
Cape Corrientes
Cape Gracias
Cape Catoche
Cape Haytien

and Grande-Terre, limestone only appears. This limestone extends to the north and east sides of Martinique.

13. Trinidad has once formed a portion of the adjoining continent. The great northern range of mountains that runs from east to west, and is connected with the high land of Paria on the continent by the islands of the Bocas, consists of gneiss, of mica slate containing large masses of quartz, and in many places approaches in nature of talc slate, and of bluish limestone traversed by veins of calc spar. From the foot of the mountains, for many leagues to the northward, there extends a low and perfectly flat land, evidently formed by the debris of the mountains and by the copious tribute of the waters of the Orinoco deposited by the influence of the currents. The famous asphaltum or pitch lake, situated amid a clayey soil, in the wet season is sufficiently solid to bear any weight, but in hot weather is often in a state approaching fluidity. The asphaltum appears to be supplied by springs. At the southwest extremity of the island, between Point Icacos and Point Herin, are small cones resembling those of the volcanoes of air and mud at Turbaco, in New Grenada, and which are of the same nature with those of Macalulia and the Lake Naftia in Sicily.

14. The smaller islands of the West Indies contain no minerals in sufficient quantity to repay the labor of working; but Cuba and Hayti possess both gold and silver, as well as several of the more useful metals. Copper is particularly abundant in Cuba, and is worked to a considerable extent; and coal has recently been discovered in the neighborhood of Habana. Alum and copperas also occur in the same island.

15. The West Indies, except the more northerly of the Bahama Islands, lie within the tropics, and are consequently subject to great heats; yet even in the warm season the influence of the surrounding ocean, the periodically recurring sea-breezes, and the height of land in the interior of the islands tend to modify the climatic intensity peculiar to their geographical position. In the interior of the large islands, in which elevation is most marked, a mild and delightful temperature is enjoyed throughout the year, and several of the smaller islands possess the same advantages. The lowlands, however, in all these islands are exceedingly unhealthy, and endemic influences render them peculiarly hostile to the European constitution. At the elevation of 1,200 feet the aspect of the climate is different, nor is it liable to the propagation and prevalence of those fevers and fluxes which prove so destructive to life in the low and swampy flats below. In the more northerly of the islands even ice is sometimes formed, but snow has never been known to fall.

16. The year, as in most tropical countries, may be divided into two seasons—the wet and the dry, though there is sufficient to mark the four seasons of more temperate climates. The spring may be said to commence in April, when the fields put forth their verdant appearance. From May to October the tropical summer reigns in all its intensity. The sea-breeze, however, which sets in at noon, greatly moderates the temperature. The mean height of the thermometer at this season is 80° Fahr. The nights are beautiful, and are tempered by the land-breeze, which blows gently off the shore from about 10 o'clock until daybreak. With October commence the autumnal rains, when the waters pour down in torrents. These continue until December, between which and April serene and pleasant weather prevails. The trade-winds blow from an easterly direction from December to June. August is the season of hurricanes, which frequently devastate whole islands. These rarely, however, occur in Cuba, and are almost unknown in Trinidad.

17. The vegetable productions of these islands are rich and abounding. Among the principal articles which they supply to commerce are sugar, coffee, cotton, and pimento, and others of less importance as indigo, ginger, arnatto, aloes, sassafras, etc. The most common fruit-trees are the pine-apple, the cocoa-nut, the pomegranate, the cashew, the cabbage, the mango, guava, shaddock, papaw, orange, lemon, bread-fruit, and the banana. The plantations of the banana and plantain are extensive in most of the islands; those of cocoa are for the most part confined to the island of Trinidad. In the Greater Antilles the mountains are clothed with extensive forests, which supply large quantities of mahogany and other valuable woods for cabinet and building purposes.



SUGAR-CANE.

18. The grains of temperate climates are not generally cultivated in the West Indies. Indian corn or maize is universally grown, and yields abundant crops. Rice is only cultivated to any extent in Trinidad. Many kinds of nutritious fruits are produced under the name of ground provisions, as the yam, manioc or cassava, sweet potatoes, and many others, betokening the wealth of vegetation.

19. Rich in botanical species, these islands are comparatively destitute of animal forms. The agouti, although once common, is now only met with in the less cultivated islands. Some wild boars are still found; otherwise the quadrupeds are represented only by monkeys and the vermin species. The bird tribes belong to the same families and in numerous instances to the same species as those of the neighboring parts of the continent, and, indeed, most of the North American summer birds pass their winters in these regions. The mocking-bird of the United States visits Cuba and Jamaica, and the Brazilian motmot inhabits as far north as the Bahama Islands. Trinidad, however, appears to be the chief island for birds; the ruby-topaz, the ruff-necked and the emerald-crested humming-birds are particularly splendid; the crimson-throated maize-bird, the Mexican hang-nest, and the red-headed tanagar are also found in this island. Turkey-vultures of large size and entirely black are not uncommon. Wading and swimming birds have the same general character as those of the adjacent mainland. Pelicans, herons, flamingoes, and other well-known birds haunt the salt marshes, while the jacana and Martinico gallinule are common in fresh-water swamps.

20. Serpents and reptiles are exceedingly numerous. The guana lizard, sometimes five feet long, and the green turtle, so prized by epicures, both form articles of food, and by some the lizard is thought to be as great a delicacy as the turtle. The marine conchiferous animals are few, and when compared with those of the Indian Archipelago sink into insignificance. The largest are the horned helmet and the strombus gigas, the shells of which are much esteemed for mantle-piece ornaments. Those inhabiting the land, on the contrary, are much more numerous than in Asia. Jamaica, in particular, produces a great variety.

21. It is a general remark that insects are much less numerous on islands than upon continents, and the West Indies fully confirms this fact. The islands, however, are by no means destitute of these interesting animals. The mosquito, bugs of various kinds, cockroaches, centipedes, ants, chigoes, etc., are as abundant as the convenience and comfort of the inhabitants could well require. The chigo is a dangerous animal, and frequently, by burrowing under the skin, produces inflammation, and frequently mortification.

22. The aboriginal inhabitants of these islands have long been extinct, except a small remnant which still exists on the islands of St. Vincent and Trinidad. When discovered, a dense population covered these prolific regions, but the barbarities of the Europeans in a short space of time destroyed these unhappy people, supplying their places with the no less unhappy African. Cuba and the other large islands were found in possession of the Arrowauks, a peaceful and timid race that soon submitted to the invader. The inhabitants of the Lesser Antilles, on the contrary, were the warlike and vigorous Caribs, who resisted the sway of the Europeans to the last.

23. The present population is composed of Europeans and their descendants, the creoles, of the African races; and of mixed races sprung from an indefinite amalgamation of all races. These last are of every variety of color and complexion, and are variously classed as mulattoes, quadroons, etc., according to the preponderance of caste. There is still another class, lately introduced into the British islands under the name of *coolies*, who originate in the mountains of Asia, and are imported as free laborers.

24. The black races, however, form the most numerous class in all the islands, and on an average about three fourths of the whole population. This class is now free in all the British islands, slavery having been abolished some twenty-five years ago; it has also been abolished or greatly modified in the Dutch and French islands; but in the island of Cuba the slaves yet form about two thirds of the negro population. In St. Domingo the condition of the races is anomalous, and though the people are nominally free and independent, the most arbitrary and extravagant exactions and impositions render their condition far more deplorable than it could have been under the worst forms of slavery.

25. An uncommon measure of prosperity and wealth was for a long period enjoyed by these islands. During the last century they supplied almost exclusively sugar, coffee, and other articles, the use of which had become general over the civilized world. After the French revolution and that of San Domingo, the islands belonging to Great Britain became almost the sole quarter whence Europe was furnished with West India produce. Since the peace of Europe many things have tended to reverse the prosperity of the West India Islands, and not least among these is the depression which usually follows over-production, and the competition which has sprung up in both North and South America and other parts of the globe. In the British islands the change of social relations and the policy pursued by the mother country have no doubt been powerful agencies in depression. England had for a long period stimulated production by bounties and protection, and under this system the islands had attained an enviable prosperity. The withdrawal of this protection was their death-blow, but the sacrifice was necessary to the general welfare of the empire, and its continuance would have been fraught with much commercial disaster. The prosperity of the free West Indies must now depend on the energies of the people themselves and their ability to compete with other producing countries, and especially with those employing slave-labor.

SANTO DOMINGO—HAYTI AND DOMINICA.

1. Santo Domingo or Hayti is one of the richest and most beautiful of the West India Islands, and after Cuba the largest. It is situate between latitudes 17° 36′ and 19° 59′ north, and longitudes 68° 20′ and 74° 28′ west; and in its greatest extent is about 396 miles long, and in its broadest part 163 miles wide. Area, including the islands Tortuga, Gonaive, etc., 27,690 square miles.

2. The island is very irregular in outline, being deeply indented by bays and inlets, and having corresponding projections. The interior is intersected east and west by three mountain chains, all mutually connected by offsets; and between these are extensive valleys, plains, and savannahs. The principal central chain, which contains the culminating peaks—of which Cibao, 7,200 feet high, is the loftiest—commences at Cape San Nicolas, in the northwest, takes an east-southeast direction, and terminates at Cape Engaño, the eastern extremity of the island. Almost parallel with this chain another, commencing near Monte Christi, nearly skirts the north coast till it terminates abruptly on approaching the peninsula of Samana. The third or south mountain range commences at Cape Tiburon, the southwest end of the island, extends eastward along the southern peninsula, and terminates at the river Neiva. The most extensive plains are—those of La Vega Real, between the north and central ranges, and watered by the Yacki and Yuma; the *llanos* or flats, east of the Neiva and south of the mountains to the coast; and the plains of Artibonite in the west.

3. All the streams of any importance originate in the central mountains, and, as may be inferred from the general direction of these, have either an east or west or south course—no

stream of consequence flowing north. The principal are—the Artibonite, flowing west, and the Monte Christi or North Yacki, northwest; the Yuma, flowing southeast, and the Neiva or South Yacki, the Nisao, and the Ozama, flowing south. They are all encumbered at their mouths with sand-bars, and hence few of them are navigable even for short distances. The Ozama, however, admits vessels drawing 12 feet of water. In the southwest there are severable considerable lakes, viz., the salt lakes of Enriquillo and Azuey—the former, in the valley of the Neiva, about 20 miles long by 8 miles broad, and the latter about 10 by 6 miles; and south of these the fresh-water lake of Icotea or Limon, about the size of Lake Azuey.

4. Little is known of the geological structure of the island, but a limestone containing vestiges of marine shells is the prevailing formation. Mineral springs exist in several parts—the most noted in the eastern part of the island are those of Banica, Biahama, Yaya, and Pargatal; and in the west the chalybeate of St. Rose, the saline of Jean Rabel, and the alkaline sulphur waters of Dalmarie. The mineral products are various and rich, and include gold, platina, silver, quicksilver, copper, iron, tin, sulphur, manganese, antimony, rock-salt, bitumen, jasper, marble, opal, lazulite, chalcedony, etc. The gold mines of the Cibao Mountains, which in the sixteenth century were very productive, have been abandoned, and at the present day gold is obtained only from the washings in the rivers.

5. Santo Domingo, as a whole, is one of the healthiest of the West India Islands, and this may more especially be said of its northern coast-region and the more elevated localities of the interior. The Vega Real is famed for its salubrity. Hurricanes occur seldomer than in the Caribbean Islands; nor are earthquakes frequent, although on several occasions they have done extensive damage.

6. Nowhere is tropical vegetation seen to greater advantage. Majestic pines, mahogany trees, fustic, satin-wood, and lignum-vitæ clothe the mountains, and furnish the principal exports of the southern provinces. The *roble* or oak, the wax-palm, divi-divi, numerous fine cabinet woods, and the richest flowering plants abound; and the usual tropical vegetables—plantains, bananas, yams, batatas; and fruits—oranges, pine-apples, cherimoyas, sapodillas, with melons and grapes, yield a plentiful return. The staple cultivated products are—coffee, sugar, indigo, cotton, tobacco, and cocoa. The western section of the island has always been the best cultivated.

7. The native quadrupeds are small—the largest not bigger than a rabbit; but the animals introduced from Europe, and now in a wild state, have thriven prodigiously—large numbers of cattle, pigs, and dogs now roaming freely in the savannahs and in the mountain forests. Birds are neither numerous in specie nor remarkable in appearance; still great numbers of pigeons are annually taken and consumed as food, and ducks in large quantities and other swimmers and waders frequent the marshy places. The lakes and rivers contain caymans and alligators, and in the neighboring seas whales are common in the spring season; and green and hawksbill turtles, lobsters, and crabs abound on the coasts.

8. This island was discovered by Columbus in 1492, and here, at Isabella, on the north shore of the island, the discoverer founded the first Spanish colony in the New World. The colonists having at an early period exterminated the aboriginal tribes, now initiated the introduction of African slaves. After the conquest of Peru, many of the settlers emigrated to South America, and the remainder, fearing the escape of their slaves, withdrew to the interior.

9. In 1630 the French, who had been driven from St. Christopher's, settled in the western part of the island, which the Spaniards had deserted, and there finding abundance of cattle and hogs, drove a thriving trade in skins and smoked flesh. Ultimately the island of Tortuga and part of the mainland were claimed by the French settlers for their king, and by treaty with Spain, 1697, the west part of the island was guaranteed to France. From this period to 1789 the new colony rapidly expanded, and in the latter year was in its most flourishing state. In the meanwhile the Spanish colony, now confined to the eastern portion, rapidly declined.

10. In 1790 the population of French Hayti was estimated at 540,000, and consisted of three classes—Europeans; negroes, nearly all slaves; and people of color, the offspring of the two former races. Many of the latter were free-born, or had obtained their liberty, and likewise had enjoyed a liberal education, but nevertheless were excluded from political privileges. On the outbreak of the French revolution a contest ensued (23d August, 1791) between the colored people and the whites—the former claiming political equality. A petty, but sanguinary war ensued, until the slave population, also rising, joined the colored people and completely subdued (21st–23d June, 1793) the whites. On the 9th May, 1801, the colony was declared independent, and its Spanish name of Santo Domingo replaced by its indigenous one of Hayti, meaning the mountainous country; and the whole island, including the Spanish portion, which had been ceded to the French in 1794, ultimately fell under the power of the negro chief, Toussaint L'Ouverture, the first president of the Haytian Republic. The French now dispatched an army to Hayti, with a view of regaining the position they had lost in the island; but after some partial successes they were permanently expelled in November, 1803.

11. In 1808 the eastern portion was restored to Spain, through the instrumentality of England. Contention for power succeeded among the various leaders of the young republic, the darkest atrocities were committed and much blood shed—limited, however, chiefly to the French portion of the island. In 1821 the Spanish portion declared itself independent, and assumed the name of Spanish Hayti; but it was soon subjected by Boyer, the president of French Hayti, and the whole island was again brought under one government. In 1842 a revolution broke out and Boyer was compelled to flee; and the inhabitants of the Spanish portion rose, overpowered the Haytians, and in 1844 formed themselves into a state under the name of the Dominican Republic.

EMPIRE OF HAYTI.

12. Hayti occupies the west end of the island already described, and corresponds in territory with the portion formerly belonging to the French, including the islands of Tortuga, Gonaive, etc. The east boundary, toward the Dominican Republic, is formed by an irregular line drawn north and south from the river Anses-à-Pitre or Pedernales, on the south coast, about longitude 71° 50′ west, to the mouth of the river Massacre, which flows into the Bay of Manzanilla, about 10 miles southwest from Cape Haytien. The area is about 10,081 square miles.

13. The country, as signified in its name, and as seen by the preceding account of the island, is mountainous, interspersed with rich, fertile plains and valleys, is well watered, and yields spontaneously many valuable products, and among these may be especially mentioned fine timber of various kinds, dye-woods, and drugs. The cultivated staples are coffee, sugar, tobacco, etc., and in a minor degree cocoa, indigo, cotton, etc. The industry of the country, however, has evidently been directed into other channels, as the exportable commodities are produced in a far inferior proportion than formerly; and this fact has led many to suppose



COFFEE ESTATE.

that negro labor is only profitable when enslaved. In the case of Hayti this assumption would be erroneous. In former times the country was drained to its utmost: now its inhabitants use that which the non-resident owners of the soil were wont to abstract for their own profit.

14. No manufactures beyond the handicrafts immediately required in every population are engaged in; and even in the products of agriculture the amounts annually brought to market have vastly diminished since the expulsion of the French—the exportation of sugar having entirely ceased, and that of coffee has become comparatively limited. The exports of the principal products of the colony the last year of French dominion were—clayed sugars, 47,516,531 pounds, and muscovado sugar, 93,573,300 pounds; coffee, 76,835,219 pounds, and cotton, 7,004,274 pounds. The total value of exports for the year referred to was 205,360,069 francs. In 1851 the amount of coffee exported was only 45,000,000 pounds, and of cotton 1,500,000 pounds. The remaining exports were made up of logwood, mahogany, tobacco, cigars, ginger, beeswax, etc., and with these the value of exported articles amounted to not more than five million dollars. The imports comprise British manufactures of all kinds; French wines, liquors, silks, etc.; German linen fabrics, woolens, bagging, wines, and mineral waters, and American lumber, staves, naval stores, provisions, etc., in all valued at less than three million dollars. There arrived at the ports of the Empire 458 vessels, 60,147 tons, and cleared 438 vessels, 57,670 tons.

15. The Empire is divided into six departments, subdivided into arrondissements and communes; and the population, chiefly negroes, is estimated at 572,000. By the constitution of 1843 the sovereign power was recognized to be in the people; the executive was placed in the hands of a president; the legislative in a chamber of commons and a senate—the former consisting of one or more representatives from each commune elected for three years, and the latter of six for each department elected for four years, and termed collectively the national assembly; and the judicial power was placed in a high court of cassation, being the highest tribunal of appeals, with various subsidiary and initiatory courts. The laws are based on the *code civil* of France.

16. The whole patronage, civil and military, being in the hands of the president, Soulouque the then incumbent dispensed it in such a manner as to enable him (26th August, 1849) to have his title of president changed into that of emperor, and to have the constitution altered to suit the circumstances; and shortly after he surrounded himself by a court of princes of the blood, dukes, counts, barons, and two orders of knighthood—that of St. Faustin and a legion of honor. The emperor himself took the style of Faustin I. The revenue of the Empire, derived chiefly from customs and navigation dues, amounts to about $1,000,000 annually—the average expenditures are a somewhat larger sum.

17. The force of the Haytian army is stated at 28,000 or 30,000 men, but of these about one half only are considered effective. The people profess the Roman Catholic religion, but others are tolerated. Church affairs are superintended by a vicar-general. In every parish a school on the Lancasterian system is maintained, or at least should be. In 1854 there were in the state 62 such schools and 4 colleges, and in these about 9,000 or 10,000 pupils.

18. The principal towns in the Empire are Port-au-Prince, Cape Haytien, Gonaives, Jacmel, Cayes, etc. Port-au-Prince (or Port Republicain) is the capital and principal sea-port. It is situate at the head of the Bay of Gonaives, and in latitude 18° 35′ north, and longitude 72° 18′ west. Population 10,000. The principal edifices are—the Palace, which has some architectural excellence, and the churches, arsenal, mint, lyceum, military hospital, etc. The vicinity is marshy and climate unhealthy. Most of the foreign trade centers here. Gonaives, 65 miles north-northwest of Port-au-Prince, and on the northeast extremity of the bay of the same name, has an excellent harbor, but is not much frequented. Population 4,000. Cape

Haytien is the principal port on the north side of the island, and was on several occasions the capital. Population from 8,000 to 9,000. St. Nicolas is situate at the extremity of a deep bay, formed by the cape of the same name and the mainland.

19. The principal ports in the south lie on the south shore of the southwestern peninsula. Of these, Jacmel, 28 miles southwest from Port-au-Prince, is the best, and has 6,000 inhabitants; and then in line are found Bainet, St. Louis, Cayes, and Tiburon, the last situate at the extreme southwest point of the island. The ports of Goave, Jeremie, and Bon are located on the north side of the peninsula, facing on the Bay of Gonaives.

20. At the commencement of 1800 the blacks of Hayti found themselves powerful enough to contend for the possession of the whole island; and on the 1st July, 1801, its independence was declared. Previous to this, in 1794, the Spanish portion in the east had been ceded to France, and hence in this declaration the independence of the whole was assumed. Subsequently the French government attempted to repossess itself of the colony, and for this purpose an expedition of 20,000 men under Le Clerc was dispatched, and landed at Samana. In February, 1802, the campaign was begun, and fought with various success until 1st May, when a truce was concluded. During the continuance of this, Toussaint, the Haytian chief, was surprised and conveyed to France, and there died in April, 1803. Hostilities were immediately renewed. The command of the black troops devolved on Dessalines, who prosecuted the war with vigor and success. The yellow fever also aided the cause of the negroes. Le Clerc dying, was succeeded by Rochambeau. An armistice was again concluded by the latter, during which the blacks received large reinforcements, while the French were blocked up by English ships. At the expiration of the armistice the French, now reduced to a handful, were driven into the Cape, where, on the 30th November, 1803, they were forced to capitulate to the English squadron.

21. On the 1st January, 1804, the Haytians formally reasserted their independence, and Dessalines, who had conducted the war to its close, was appointed governor for life. Afterward (8th October, 1804) he assumed the title of Jaques I., emperor of Hayti; but his reign was troublous and brief, and terminated in a military conspiracy on the 17th October, 1806.

22. Hayti was now divided among several chieftains, the principal of which were Christophe, in the northwest, and Petion, in the southwest. In 1807 Christophe was appointed chief magistrate for life, and in 1811 changed the title to that of king, calling himself Henry I., and the office was made hereditary in his family. Petion continued to act as president of the southwest until May, 1818, when he died, universally lamented. Christophe, on the other hand, was killed in a revolt in October, 1820; and having ruled as a despot, his memory was as universally execrated.

23. All the governments of the west were now (November, 1820) reunited under Boyer, the successor of Petion. From 1808 the eastern portion of the island had been repossessed by Spain, and maintained under that government. On the 30th November, 1821, however, the inhabitants revolted and declared their independence. Soon after its territory was added to the western government. This union lasted until the downfall of Boyer, when it was dissolved, and the Dominican Republic proclaimed. France acknowledged the independence of Hayti on the 17th April, 1825.

[*Weights, Measures, and Moneys.*—The same as in France.]

DOMINICAN REPUBLIC.

24. Santo Domingo or the Dominican Republic claims for its territory the same extent as held by the Spaniards under the treaty of 1697, and hence all east of the line of the Pedernales and Massacre rivers. The extent of this portion of the island is at least three fifths of the whole.

25. The Republic is divided into five provinces—

Provinces.	Area, sq. m.	Population.	Capitals.
Santo Domingo	3,826	35,000	Santo Domingo.
Azua-de-Compostela	4,318	15,200	Azua.
Santa-Cruz-del-Seybo	3,709	20,000	Seybo.
Santiago-de-los-Caballeros	3,172	33,500	Santiago.
Concepçion-de-la-Vega	2,584	33,000	La Vega.
Total	17,609	136,700	

—of the population at least nine tenths are of African origin, or of African and European intermixed. The remainder are Spaniards and creoles.

26. The Dominicans are almost entirely an agricultural people. The staples of the south provinces consist chiefly of the products of the forests. In Seybo, however, the raising of cattle is the main occupation. But by far the most industrious part is the north, generally called the Cibao, where the staple article is an excellent quality of tobacco, of which, according to the season, 50,000 to 80,000 seroons are produced. The articles of export are mahogany, satin-wood, fustic, lignum-vitæ, and brazil-wood, tobacco, hides, etc. The imports are chiefly flour and provisions from the United States, and general merchandise from Europe. The following table exhibits the statistics of this trade for the year 1852 and the three years next previous:

Ports.	Entrances. Vess.	Entrances. Tons.	Value of Imports.	Clearances. Vess.	Clearances. Tons.	Value of Exports.	Total Commerce. Vess.	Total Commerce. Tons.	Total Commerce. Value.
Santo Domingo (S.)	162	19,375	$636,178	140	18,468	$677,073	302	37,843	$1,313,351
Porto Plata (N.)	162	10,680	527,189	158	11,446	878,856	320	22,126	1,406,045
Total 1852	324	30,055	$1,163,367	298	29,914	$1,555,929	622	59,969	$2,719,396
" 1851	279	24,449	1,141,891	261	21,776	1,184,914	540	46,225	2,326,805
" 1850	272	33,403	781,875	268	28,290	1,008,173	540	45,693	1,737,048
" 1849	248	20,082	556,282	216	16,189	611,875	464	36,221	868,157

—showing a total increase in four years equal to 213 per cent.

27. The constitution of the Republic is based on that of Venezuela. The congress, which assembles annually, consists of 15 deputies, three from each province, who form the Tribunado or lower chamber, and five senators, one from each province, constituting the Consejo Conservador or upper chamber. The executive power is vested in a president, who is elected for four years, and who must be a Dominican by birth and at least 35 years of age. The judiciary is exercised by a supreme court and various inferior and local courts; and the French code has been adopted in legal proceedings. In 1852 the revenue amounted to $374,516; and the ordinary expenditures amount annually to about $250,000. No foreign debt is owing; but there exists a large home debt on which the currency is based, and hence is of low and fluctuating value. The army amounts to 12,000 men, and may be raised to 16,000. The navy consists of three corvettes and five schooners equipped as war vessels, and mounted with 44 guns. The prevailing religion is the Roman Catholic, but the exercise of all other rites is tolerated. The archbishop still bears the title of Primate of the Indies, although he has not a single suffragan. Public instruction is neglected, even in its primary elements, and, except in the towns, the people have no means of education. In the capital there is a college.

28. Santo Domingo, the capital and principal sea-port, is situate on the southwest, at the mouth of the Ozama River, and is surrounded by walls and bastions. Latitude 18° 28′ north, and longitude 69° 50′ west. Population 10,000. It was the first permanent settlement of the Spaniards in America. The harbor is secure, but unfit for large ships. The city has wide and regular streets, and the houses, chiefly of stone, are of one story. The most conspicuous public building is the Cathedral, commenced in 1514, under Diego, son of Columbus, and in which the ashes of the great discoverer rested for upward of two centuries. There are also 14 churches and chapels. The other principal edifices are—the National Palace, the Palace of the Congress, the Cabildo or Town House, college, citadel, arsenal, hospitals, etc. The ruins of the Jesuits' College, the Palace of Don Diego, and the Convent of San Francisco are striking features of the city, and fit mementoes of its former magnificence. The first blow to the prosperity of Santo Domingo was struck in 1586 by Sir Francis Drake, who took it by assault, pillaged and nearly destroyed it. The earthquakes of 1684 and 1691 ruined most of the buildings which Drake had spared. And lastly the spoliations of the Haytians in 1822–24 deprived it of many of its most interesting monuments.



RUINS OF THE PALACE OF DIEGO COLUMBUS.

29. Porto Plata, on the north coast, 12 miles northwest of Santiago, is the second principal port of the Republic, and the outlet of the commerce of the northern provinces. There are other ports on both sides of the island. The Bay of Samana forms one of the finest harbors in the world, and may be regarded as a most important maritime position in reference to the trade of the Gulf of Mexico and the inter-oceanic routes across Central America, both in a commercial and military point of view.

30. Among the places in the interior the following deserve to be mentioned, viz., Azua, where Hernandes Cortez was a public notary; Concepçion-de-la-Vega, for the proximity of Fort Concepçion, constructed by Columbus, and Santo Cerro, where he erected a cross. Santiago-de-los-Caballeros was founded by the dissolute hidalgos in the company of Columbus; it lies on the right bank of the river Yacki, and is now the second town of the Republic, having 7,000 inhabitants. Besides these may be noticed—Higuey, Seybo, San Juan de Maguana, Neybo, Bani, San Cristoval, Bayaguana, Monte Plata, Cotuy, and Boya, the last famed as the place of refuge of Enriquillo, the last of the Haytian caziques.

31. The Spanish colonists threw off their allegiance to Spain, and on the 30th November, 1821, declared themselves independent, under the name of the Republic of Spanish Hayti. This measure was not generally approved of—the colored and black inhabitants preferring annexation to French Hayti. Boyer, then president of that portion of the island, availing himself of this dissatisfaction, marched against the city of Santo Domingo, and overthrowing the provisional government, united the whole island under one government. The union, which had never been cordial, lasted for 21 years. On the fall of Boyer, the Spaniards again asserted their independence.

32. The citizens of Santo Domingo rose on the night of 26th February, 1844, and having succeeded in driving the Haytian garrison into the citadel, they proclaimed at the sunrise of the 27th the Dominican Republic. The Haytian troops were obliged to capitulate, and were embarked for Port-au-Prince. Herard Rivière, president of Hayti, now marched with an army of 20,000 men upon Santo Domingo, but Gen. Pedro Santana defeated him at Azua, and compelled the invading army to retire within their own borders. The provisional government of the new republic framed a constitution, and Santana was elected first president. He was succeeded in 1848 by Jimenes.

33. In 1849 Soulouque (now Faustin I.), then president of Hayti, attempted anew to reconquer the territory with an army of about 5,000 men, but was signally defeated (21st April) at Las Carreras, on the river Ocoa, by Santana, who had only 400 men under his command. At the same time Santana seized upon the incompetent Jimenes, and placed Buenaventura Baez in the presidential chair. During the administration of this president treaties of recognition and commerce were entered into by France, Great Britain, and Denmark. Up to the present time, however, the emperor, Faustin I., has strenuously opposed the new government, and actual war is only prevented by an armistice between the two powers, dictated by England and France. It may likewise be observed that Spain has not yet relinquished her rights upon her former colony.

[*Weight, Measures, and Moneys.*—Same as in Spain.]

SPANISH WEST INDIES.

1. Spain, the discoverer of the New World, and the original mistress of one third of North, the whole of Central, and more than half of South America, at the present day occupies only two islands in the Atlantic Ocean—Cuba and Porto Rico, and their dependencies. The continental portions of her ancient territories are either merged into the United States or have become independent states; and the many islands once under her sovereignty are now either independent or colonies of other European powers.

ISLAND OF CUBA.

2. Cuba, the largest of the West India Islands, is situate at the entrance of the Gulf of Mexico, and about 130 miles south of Florida, 48 from Santo Domingo, 95 from Jamaica, and 132 from Yucatan, in its nearest points. It extends in a crescent form, bowing northward, from Cabo de Maisi on the east to Cabo de San Antonio on the west, or between longitudes 74° 7′ and 84° 57′ west, and between latitudes 19° 50′ and 23° 10′ north. Area, with its dependencies, 47,278 square miles.

3. This island is intersected longitudinally by a range of mountains diminishing in height from east to west. At the east end, where they are diffused over nearly the entire surface, they attain their greatest elevation, about 8,000 feet. From the bases of these highlands the country opens into extensive meadows or beautiful plains and savannahs.

4. Owing to the nature of the surface and narrowness of the island there are no rivers of magnitude. The largest, the Cauto, with its sources in the Sierra del Cobre, falls into the Bay of Buena Esperanza, after a course altogether of about 90 miles. None of the streams are navigable excepting for a few miles inland and by small boats. The coasts are in general exceedingly foul, presenting reefs and shallows which extend two or three miles into the sea, and make approach difficult. Within these reefs there is often a good sandy beach, but more frequently a belt of low land, subject to inundation, wet at all times, and in the rainy season almost impassable. On all sides, however, there are good harbors and eligible ports.

5. Geologically the island may be described as composed of granite, gneiss, sienite, and euphodite, overlain by secondary and tertiary formations, chiefly calcareous, containing numerous fossils, and through which the primitive rocks are often protruded. In some localities the limestone is exceedingly porous and cavernous, absorbing rapidly the tropical rains, and even engulfing considerable streams. The latest calcareous formation is entirely coraliferous, and is constantly accumulating on all the coasts. The mineral riches of Cuba have not yet been fully explored, but it is known that it is not deficient in this respect. The precious metals have been found, but not in abundance. Copper, however, is extensively deposited, especially in the Sierra del Cobre. In the mountains of Juragua there are alum and copperas mines, and coal has been recently discovered near Habana. Serpentine, chalcedony, magnesia, iron pyrites, quartz, and feldspar slates and schists have also been found in various places. The schistose formation shows itself most conspicuously at the base of the mountains of San Juan and Trinidad, where great masses of slate may be seen, of a dark blue color, and of a pyritous and bituminous quality. Near Habana a thick slate is found, fit for pavements. Mineral springs are numerous; and on the north coast there are extensive lagoons, which in dry years produce immense quantities of marine salt.

6. The climate is hot and moist near the coasts, but in the interior cool and healthy. Vegetation is exceedingly luxuriant; forests of mahogany, ebony, ceiba, cedar, fustic, and other useful woods abound, and the savannahs are covered with flowers and odoriferous plants. Maize or Indian corn is the principal cereal cultivated, and of this two crops are annually produced. In many districts rice is also a large crop. But the principal products are sugar,



SUGAR ESTATE.

coffee, and tobacco; also a little cotton, cocoa, and indigo. The principal fruits are the pine or ananas, oranges, shaddocks, plantains, bananas, melons, lemons, and sweet limes.

7. The only indigenous quadruped ever known in Cuba is the *huitia*, which resembles a large rat, about 18 inches long and without a tail. Birds, however, are numerous, and in great variety; and insects, including many that are noxious, as jiggers, ants, mosquitoes, and spiders, abound. The most remarkable of the reptiles are the maja and the juba—the former from 12 to 14 feet long, and the latter about 6 feet long, and both are dangerous. Scorpions and centipedes are also very numerous. The shores abound with turtle, and in the deep gulfs and bays the alligator and cayman are found; while the manati and iguana are not uncommon—the first in fresh-water ponds and the latter on the banks of streams, lagoons, etc. Fish is abundant, especially on the north coast.

8. Cuba is divided into two military departments, and 30 jurisdictions or intendencies:

Jurisdictions.		Area, sq. m.	Population (1854). White.	Free Col.	Slave.	Total.	Capitals.	Population.
Pinar del Rio	Occidental Department.	3,713	21,843	8,824	9,998	35,665	Pinar del Rio	1,500
San Cristóbal		905	11,578	1,928	6,548	20,049	San Cristóbal	270
Bahia-Honda		762	4,124	671	5,494	10,289	Bahia-Honda	570
Mariel		572	15,941	2,849	19,422	38,192	Guanajay	3,000
San Antonio		154	12,284	1,721	10,188	24,193	San Antonio Abad	2,890
Habana		893	87,916	32,594	26,850	147,360	Habana	125,905
Santiago		214	7,194	1,597	4,964	13,755	Santiago	2,274
Bejucal		191	10,817	1,746	7,988	20,501	Bejucal	2,264
Guanabacoa		166	10,721	3,273	4,322	18,316	Guanabacoa	8,100
Rosario		309	11,764	2,841	5,428	20,033	Rosario	450
Güines		1,131	18,214	2,442	16,918	37,574	Güines	3,542
Jaruco		512	10,218	1,875	8,136	20,229	Jaruco	611
Matanzas		856	37,721	5,948	40,728	81,397	Matanzas	26,000
Cárdenas		1,264	27,521	3,824	58,016	86,361	Cárdenas	6,173
Sagua		1,464	14,584	1,173	10,001	25,758	Sagua la Grande	2,510
Cienfuegos		2,558	17,811	4,124	11,318	33,253	Cienfuegos	4,708
Villa Clara		1,845	25,592	8,528	5,301	39,421	Villa Clara	6,604
Trinidad		868	15,208	7,324	9,318	31,850	Trinidad	14,119
Remedios		2,439	15,149	3,821	4,012	22,982	Remedios	5,270
Santo Espiritu		3,819	24,321	6,394	6,816	37,532	Santo Espiritu	9,982
Total		24,133	397,451	98,442	268,717	764,610		
Puerto Principe	Oriental Department.	6,009	26,593	10,318	9,821	46,532	Puerto Principe	26,648
Nuevitas		2,261	2,721	397	1,742	4,860	Nuevitas	820
Tunas		2,725	3,818	1,841	722	6,361	Tunas	2,004
Manzanillo		1,380	7,321	11,143	917	19,381	Manzanillo	3,450
Holguin		2,523	19,427	3,771	3,827	26,525	Holguin	3,754
Bayamo		1,309	10,721	11,217	2,724	24,662	Bayamo	5,875
Jiguani		702	6,721	4,318	684	11,723	Jiguani	950
Cuba		3,177	21,594	29,718	34,080	85,242	Cuba	24,253
Guantánamo		1,595	1,574	2,281	5,928	9,783	Guaso	868
Baracoa		1,464	3,817	3,721	1,842	9,381	Baracoa	2,400
Total		22,145	104,537	78,205	61,793	244,450		
Grand total		47,278*	501,988	176,647	330,425	1,009,060		

—there were also in Cuba about 40,940 persons who were classed as transient residents, and not accounted for in the above census. Of the whites, about 90,000 were Spaniards and 25,000 Canary islanders, 3,000 French, 1,000 English, and 3,000 North American and other people. Since the above enumeration, large numbers of Asiatics, under the designation of coolies, have been imported as apprenticed laborers, and form a class between the slave and free.

9. Cuba is agricultural and commercial. It has few manufactures, properly so called; nor are its copper mines, though a conspicuous, a very remunerative interest, and, moreover, these are worked mainly on foreign account.

10. The staples of agriculture are sugar, coffee, and tobacco; in 1852 the sugar crop amounted to 29,165,238 arrobas; coffee, 1,166,902 arrobas; and tobacco, 222,020 cargas. The other principal products were—molasses, 267,185 bocoyes; rum, 39,411 pipas; beeswax, 74,903 arrobas; and honey, 106,175 barriles. Root-crops are abundant. The breeding of animals is also a valuable interest: in 1850 the livestock consisted of—bulls and cows, 773,353; working oxen, 128,480; horses and asses, 214,588; mules, 23,131; hogs, 928,952; sheep, 53,763; goats, 29,385; pea-fowl, 75,646; geese, 25,115; common fowls, 1,562,152; Guinea fowls, 143,177; ducks, 189,708, etc. The annual value of agricultural stock and products is about sixty million dollars. Only about a twentieth part of the island is under cultivation.

11. The making of sugar and rum, and the preparation of coffee and tobacco for market constitute the chief manufactures. A large number of persons are also employed in the manufacture of cigars; and many articles for home-use are made in families. Ship-building is also carried on; and in Habana and Guanabacoa steam and other machinery is built, while at Puentes-Grandes a paper-mill is in operation. There are also numerous sugar refineries, tanneries, etc. Perfumery, phosphorus, jewelry, plate, carriages, etc., are manufactured.

12. Commerce is in a very flourishing condition. The exports consist principally of the natural and agricultural products of the island, as mahogany, dye-woods, drugs, sugar, coffee, tobacco, etc. In 1851 there was exported—sugar, 1,549,893 cajas; coffee, 625,113 arrobas; beeswax, 47,453 arrobas; molasses, 341,594 bocoyes; leaf tobacco 9,316,593 pounds, and cigars 270,313 thousands; cocoa, 7,039 arrobas; rum, 9,221 pipas; copper ore, 432,882 quintals, etc. The imports consist chiefly of grain, flour, salt meat and fish, etc., from the United States, and general merchandise from England, France, Spain, Germany, etc.

13. The following table exhibits the statistics of the shipping employed in foreign commerce, and the value of imports and exports, etc., for the year above named:

Ports.	Navigation. Entrances.	Clearances.	Commerce. Imports.	Exports.	Duties Collected. Import.	Export.
Habana	1,749	1,622	$25,519,146	$16,577,001	$4,776,571	$1,020,905
Matanzas	499	478	1,889,478	5,573,370	568,186	305,088
Cárdenas	413	414	638,582	1,299,755	187,638	38,277
Mariel	88	—	8,527	7,350	1,000	—
Trinidad	197	188	706,987	1,668,017	181,197	74,415
Cienfuegos	266	230	571,363	1,273,368	179,754	73,900
Nuevitas	53	52	162,115	266,549	39,760	10,886
Sagua	129	129	128,221	1,217,108	64,976	72,874
Remedios	46	47	53,129	284,192	24,848	23,974
Santo Cruz	19	20	9,569	54,220	7,847	2,389
Santo Espiritu	11	11	29,384	42,266	8,129	2,972
Cuba	314	311	2,136,988	2,681,411	590,658	108,024
Jibara	37	34	293,734	300,171	86,463	32,931
Manzanillo	65	65	162,974	254,266	55,548	16,888
Baracoa	34	31	68,188	170,410	16,450	9,280
Guantanamo	1	1	2,820	—	310	181
Total	3,865	3,733	$32,315,145	$31,349,357	$6,678,885	$1,793,984

—of the vessels inward, 883 were Spanish, and 2,982 foreign, and of those outward, 793 were Spanish, and 2,940 foreign.

* The areas of the adjacent islands and cayos are included in those of the jurisdictions to which they severally belong: the Isla de Pinos, in the jurisdiction of Habana, contains 769 square miles, and 1,400 inhabitants: the Cayo Romano, in Puerto Principe, 190 sq. m.; Cayo Guajaba, 21 sq. m.; Cayo Cocos, 37 sq. m.; Cayo Turiguano, 51 sq. m.; Cayo Ensenachos, 25 sq m., Cayo Cruz, 76 sq. m.; Cayo Largo, 43 sq. m., etc.

14. The following table exhibits the average quantities of the principal products of the island exported annually, in quinquennial periods:

Periods.	Sugar, *arrobas.*	Rum, *pipas.*	Molasses, *boxes.*	Coffee, *arrobas.*	Beeswax, *arrobas.*	Tobacco, *arrobas.*	Cigars, *libras* or *lbs.*	Copper Ore, *quintals.*
1826–30	6,508,137	3,606	72,921	1,718,865	25,789	102,915	245,097	—
1831–35	7,893,575	3,991	98,478	1,995,882	33,582	99,763	471,993	—
1836–40	10,148,555	6,235	128,447	1,877,444	32,253	195,487	790,467	—
1841–45	12,867,698	9,157	147,074	1,832,997	37,407	244,872	947,467	1,028,838
1846–50	18,690,460	13,653	240,155	768,244	48,141	291,347	896,008	598,647

—and the annexed shows the progressive value of the average annual commercial movement:

Periods.	Value of Imports.	Increase per cent.	Value of Exports.	Increase per cent.	Total Commerce.	Increase per cent.
1826–30	$15,412,689	—	$12,717,929	—	$28,136,618	—
1831–35	16,756,448	8.7	12,887,389	1.3	29,643,787	5.4
1836–40	21,652,756	29.2	18,513,648	43.6	40,166,414	35.5
1841–45	22,472,355	3.7	24,499,646	30.2	46,572,001	15.9
1846–50	27,150,754	20.8	24,828,988	3.0	51,979,742	11.6
Increase in 25 years	$11,738,065	75.5	$12,111,059	95.3	$23,849,124	84.8

—the value of domestic produce exported in 1846 was $21,587,564; in 1847, $27,296,954; in 1848, $25,312,553; in 1849, $21,896,526; and in 1850, $25,043,154.

15. The mercantile navy consists of 639 vessels of all sizes, of which 7 are vessels of over 400 tons, 30 of 200 to 400 tons, 99 of 80 to 200 tons, 295 of 20 to 80 tons, and 208 of less than 20 tons. Of these 20 are steamers, and 389 of foreign construction.

16. Regular steamship lines are established between Habana and New York, Charleston, Key West, Mobile, and New Orleans, in the United States; Vera Cruz, in Mexico; Aspinwall, in Central America; Rio Janeiro and Buenos Ayres, in South America; Southampton and Liverpool, in England; and Cadiz, in Spain. All the steamships composing these lines carry the public mails, and run either semi-monthly or monthly.

17. Internal communication is amply provided for. All the chief ports are connected by lines of coasting steamers and sail-vessels. Common roads of the island are open from one to the other end, with lateral roads diverging to the coast towns; and the railroad, introduced in 1837, now traverses over a length of 351 miles. The principal railroads are those from Habana to Batabana and Matanzas; from Cárdenas to Navajas; the Jucaro railroad, and those from Villa Clara to Cienfuegos, and from Puerto Principe to Nuevitas. Several of the large cities are also connected by lines of the electro-magnetic telegraph.

18. All branches of the administration are subject to a representative of the Spanish crown, who is at the same time captain-general, superior civil governor, president of the Audiencia Real, etc., and who is appointed by and amenable only to the home government. The whole island constitutes a single province. For political and civil purposes it is divided into three governments—Habana, Matanzas, and Cuba, and these are subdivided into sub-governments, parishes, etc. Habana comprises all the jurisdictions of the occidental department except Matanzas, and is under the immediate charge of the superior civil governor; Matanzas is a separate government, and Cuba comprises all the jurisdictions of the oriental department. The two latter are subject to civil governors, nearly independent of the supreme civil governor. The principal civil tribunal is the royal court (*audiencia real pretorial*) of Habana, which has jurisdiction over the whole island, and is presided over by the superior civil governor. Provincial courts (*ayuntamientos*) are also established, and police courts in the rural districts. The ecclesiastical are coterminous with the military divisions.



GOVERNMENT PALACE, HABANA.

19. The total receipts into the treasury in 1850 amounted to $12,248,713, of which $6,721,251 was maritime revenue, and $5,527,462 internal revenue; and the expenditures amounted to $11,779,160. The revenue for the ten years then ending had been as follows:

Years.	Maritime.	Internal.	Total.	Years.	Maritime.	Internal.	Total.
1841	$7,206,464	$4,650,835	$11,917,299	1846	$6,232,967	$1,907,811	$11,140,779
1842	7,383,316	4,731,496	12,114,843	1847	7,494,330	5,314,383	12,808,713
1843	6,987,017	3,407,040	10,394,057	1848	7,396,726	6,038,715	13,435,441
1844	7,160,631	3,329,621	10,190,252	1849	6,429,160	5,840,260	12,269,420
1845	5,370,748	3,629,452	9,000,200	1850	6,721,251	5,527,462	12,248,713

The disbursements in 1850 were—civil $1,841,010, military $5,028,901, naval $2,045,004, and miscellaneous $1,300,732; and $1,563,513 was transmitted to Spain in support of legations, pensioners, and employees connected with the island government.

20. The land force of Cuba consists of 16 regiments of infantry of 1,100 men; two of cavalry of four squadrons, each of 151 men; one of artillery with eight batteries, and a company of sappers and miners with five batteries; and a company of engineers—the whole force amounting to 17,600 infantry, 1,808 cavalry, 1,500 artillery, and 130 engineers, in all 21,038 men. In this enumeration is not included the civil guard. The naval squadron comprises 25 vessels carrying 219 guns, and is manned by 3,000 seamen and marines. Among these is 1 frigate, 44 guns; 7 brigs, 104 guns; 11 steamers, 54 guns; 4 goletas, 11 guns; 2 gun-boats, 6 guns; 2 transports, etc. In times of danger this force is increased indefinitely.

21. Both religion and education are under the immediate protection of the government. For ecclesiastical purposes the island is divided into two dioceses, the archbishopric of Cuba and the bishopric of Habana, and these are divided into vicarages and curacies. The Roman Catholic is established to the exclusion of all other religions, and is that universally professed by the people. Public education has made notable progress, and is under the patronage of the royal economic societies of Habana and Cuba, and controlled by a special commission. The total number of persons employed in giving primary instruction is about 460, and the number of scholars about 10,000. In Habana there is a royal university, which has a staff of 30 professors—in 1851 it had 252 matriculants, and of these 61 graduated. There are also ecclesiastical seminaries in Habana and Cuba; and in the principal places are grammar schools.

22. The public press of Cuba, though greatly fettered in its political attributes, is still one of influence and importance, being chiefly devoted to commerce and other industries. In Habana four daily papers are issued, and several others at more distant periods; and in each of the principal towns one or more newspapers are issued weekly. The "Diario de la Marina," published at Habana, is the organ of the government.

23. Cuba contains 13 cities, 8 towns, and 102 villages. Habana, the capital and principal sea-port, stands on the west side of the entrance of a magnificent land-locked harbor, in latitude 23° 9′ 4″ north, and 82° 22′ west, and is strongly protected by forts and walls, the latter dividing it from the suburbs Salud, Guadalupe, etc., in which nearly half of the population resides. The suburb Regla is on the opposite side of the harbor. The streets of the city are narrow, but the suburbs well laid out and paved, generally with granite. The buildings are mostly of stone: and among these the most conspicuous are the Cathedral (containing the ashes of Columbus), the Government Palace, Admiralty, Post-office, Royal Tobacco Factory, and the *Casa de Beneficiencia*, numerous churches, convents, etc. There are about 90 male and 66 female schools in the city, a university, and an ecclesiastical seminary, a theater capable of holding 6,000 persons, and other places of public amusement. It is connected with Batabana, Matanzas, Cárdenas, etc., by railroad. Matanzas, second only to Habana in commercial prosperity, is situate in a deep bay on the north coast, about 60 miles east of the capital. It has a well-sheltered harbor, partly inclosing the town, and has acquired all its importance since the commencement of the present century. Puerto Principe is situate in the interior, about 45 miles west-southwest of its port Las Nuevitas, with which it is connected by railroad, and was formerly the seat of the Audiencia Real or royal court. Santiago de Cuba is the principal sea-port of the south coast. It has a magnificent harbor, and is chiefly engaged in the exportation of copper ore. It is the see of the archbishop, and contains a cathedral, theological seminary, several learned societies, and a theater. The city was greatly injured by an earthquake in 1853. The other cities are—Santiago, Bejucal, Rosario, Jaruco, Trinidad, Nuevitas, Bayamo, Holguin, and Baracoa, and the towns are—San Antonia, Guanabacoa, Güines, Cienfuegos, Villa-Clara, Remedios, Santo Espiritu, and Manzanillo. All other places are villages.



CITY OF HABANA.

24. Cuba was discovered on the 28th October, 1492, by Columbus, who revisited it in 1494, and again in 1502. In 1511 the Spaniards formed their first settlements on the island, and with slight interruption have retained possession of it ever since. In 1762 Habana was captured by the British, but was restored in exchange for Florida in the following year. From this period the history of Cuba presents little more interesting than a catalogue of captains-general and bishops down to the period 1809–11, when the ports were opened to the shipping and trade of foreign countries. This event marks the commencement of the material prosperity of the island, which is still only in course of development.

[*Weights, Measures, and Moneys.*—Weights same as in Spain: the quintal = 4 arrobas = 100 libras or 101.4 lbs. avoirdupois. The Cuban vara = 33.2 inches: 5,000 varas = 1 legua. The caneca of 10 frascos = 6.67 gallons. Money same as in Spain, except that the doubloon is reckoned as $17 instead of $16.

ISLAND OF PORTO RICO.

25. Porto Rico, the smallest of the Great Antilles, and the most eastward, is situate between latitudes 17° 56′ and 18° 22′ north, and longitudes 65° 41′ and 67° 12′ west from Greenwich. In shape the island is parallelogramic; its length about 90 miles, and its breadth about 36 miles. Area, with dependencies, 3,865 square miles.

26. A range of wooded mountains traverses the island east and west, averaging 1,500 feet, and in their loftiest culmination attaining an elevation of 3,678 feet above the sea. In the interior are extensive savannahs; and in some parts, along the coasts, there are tracts of level fertile land from five to ten miles wide, while in others the mountains approach much nearer to the sea. Nearly the whole north coast is lined by long and deep lagoons, and many of the rivers can be navigated to the base of the mountains. The north coast is subject to heavy ground seas, which beat against the cliffs with great violence. There are, nevertheless, good harbors on both sides of the island, and numerous bays and creeks deep enough for vessels of considerable tonnage.

27. The climate is generally salubrious; and vegetation, fostered by its warm moisture, is exceedingly luxuriant. The principal timber growths are ebony, cedar, lignum-vitæ, mahogany, logwood, etc., and many plants valuable in the arts and pharmacy grow spontaneously. Among the minerals found in Porto Rico the most valuable are copper, iron, lead, and coal; and gold is found in the streams. There are also two considerable salt-ponds, which are worked by the government.

28. Porto Rico, with its dependencies, is divided into eight departments or districts:

Departments, etc.	Area, sq. m.	Popula. (1846).	Chief Towns.	Popul'n.
La Capital	565	70,861	San Juan Bautista	15,367
			Bayamon	8,125
Arecibo	676	54,044	Arecibo	11,187
Aguadilla	257	57,322	Aguadilla	10,458
Mayagües	684	99,895	Mayagües	20,952
			San German	44,402
Ponce	738	71,168	Ponce	21,466
Humacao	348	41,593	Humacao	6,165
Guayama	529	51,756	Guayama	12,244
			Caguas	7,898
Isla de Vieque	73	1,275	Isabel Segunda	354
Total	3,865	427,914		

—of the total population 220,045 were Spaniards and their descendants, and 227,869 Africans

and mixed races, of which about 45,000 are slaves. The total population in 1836 numbered 357,086 souls: the increase in the ten years to 1846 was thus in the ratio of 25.5 per cent., and hence, with the same rate, the island in 1856 would have 562,134 inhabitants.

29. The resources of Porto Rico are essentially agricultural. Until lately none of its mines were worked; nor has manufacturing industry made any progress. Not more than one twelfth of the island is under cultivation. The principal products are sugar, coffee, and



SUGAR BOILING.

tobacco; and extensive farms are laid off for the rearing of livestock. The capital invested in agriculture in 1846 amounted to $40,796,464, and the value of agricultural products for the same year amounted to $6,896,621. The capital employed in other industries was $7,823,545, and the production $448,344. The value of products exported in 1851 was $5,761,975, and of imports $6,073,870: and the customs collected on these amounted to $1,079,418. The chief articles of export in the same year were—sugar, 118,416,300 pounds; coffee, 12,111,900 pounds; tobacco, 6,478,100 pounds; hides, 632,700 pounds; cotton, 366,600 pounds; molasses, 45,976 hogsheads; rum, 347 hogsheads; cattle, 5,881 head; cigars, 34,800 thousands, and smaller quantities of cocoa, oranges, plantains, logwood, lignum-vitæ, pimento, annato, castor-oil, etc. The number of vessels entered at the various ports was 1,324, measuring 160,586 tons. San Juan Mayagües, Ponce, Guayama, Aguadilla, Naguabo, and Arecibo are the principal ports.

30. The government, laws, and institutions are nearly similar to those established by Spain in her other transatlantic possessions. Porto Rico is governed by a captain-general, whose authority is supreme in military affairs, and who is president of the Audiencia Real in civil affairs. In the towns which are capitals of districts, justice is administered by mayors or judges of the first instance, and in the smaller towns and villages by inferior magistrates called alcaldes. The Real Audiencia is the supreme court of the island, and is held at the capital. District courts are held at the capital, Arecibo, Aguadilla, Mayagües, San German, Ponce, Caguas, and Humacao.

31. Each of the eight districts has its military commandant. The regular land force consists of three European regiments, each of 900 men, a brigade of artillery, six battalions of disciplined militia infantry, and a regiment of cavalry—in all about 10,000 men; and the militia numbers about 45,000 in all. The naval force, which is essentially a section of the Habana fleet, consists of a ship of war, a schooner, and some score gun-boats. The people are wholly Roman Catholic, and are under a bishop.

32. Education has of late years been attended to, and is now accessible to all, either in the free schools or at private establishments in all the larger towns.

33. Porto Rico (San Juan de), the principal city, and a fine sea-port, is situate on the north coast in latitude 17° 56′, and longitude 66° 10′. It stands on a small island connected with the mainland by a bridge, and is surrounded by strong fortifications. It has six churches and chapels, the bishop's palace, a military hospital, theater, town-house, jail, custom-house, arsenal, etc., and is the seat of government and superior courts of the island. The harbor is very spacious, and capable of accommodating vessels of the largest size. It is one of the best regulated and most healthy towns of the West Indies.

34. Columbus discovered Porto Rico in 1493, at which period it is said to have had a population of 600,000 or 800,000 souls. In 1509 it was invaded by the Spaniards from Hayti, who in a few years exterminated the natives and took possession of the island. In the latter part of the century it was captured by the English; but soon after abandoned on account of mortality among the troops. From this time it has been free from foreign aggression; but in 1820 a revolution was attempted in favor of separation from the mother-country and independence. This was subdued in 1823.

[*Weights, Measures, and Moneys.*—Identical in denominations and values with those of Spain.]

BRITISH WEST INDIES.

1. The British West Indies consist of—the Bahamas, the island of Jamaica, several of the Caribbean Islands, and a number of small islands belonging to the Virgin group. In a more extended sense the term applies also to the Bermuda Islands in North America, Honduras in Central America, and the colonies of Guayana in South America; but these are more conveniently described in connection with the geographical sections to which they properly belong. The islands included in the political family to which reference is now had are as follows:

Islands.		Area, sq. m.	Population.	Capitals.	Popula.
Bahamas		5,094	27,519	*Nassau*	8,400
Turk's Island and the Caicos		430	4,428	Grand Turk	2,000
Jamaica		6,250	377,433	Spanish Town	6,300
Caymans		260	1,760	Georgetown	200
Trinidad	Windward.	2,120	68,645	*Puerto d'Espana*	12,000
Tobago	Windward.	144	13,208	Scarboro'	1,400
Grenada, etc.	Windward.	155	32,671	St. Georgetown	1,800
St. Vincent	Windward.	132	30,128	Kingstown	5,300
Barbadoes	Windward.	166	135,939	*Bridgetown*	22,000
St. Lucia	Windward.	206	24,516	Castries	2,600
Dominica	Leeward.	271	22,061	Roseau	4,800
Montserrat	Leeward.	47	7,653	Plymouth	1,400
Antigua	Leeward.	108	37,757	*St. John's*	14,600
St. Christopher	Leeward.	68	23,177	Basse-Terre	7,600
Nevis	Leeward.	21	9,611	Charlestown	1,800
Barbuda	Leeward.	72	1,767	Barbuda Castle	—
Anguilla	Leeward.	34	3,752	Anguilla	300
Virgin Islands		92	6,689	Tortola	2,700
Total		15,663	835,944		

—about four fifths of the population are blacks and other colored races, and the remainder Europeans and their descendants. In St. Vincent and Trinidad a few hundred of the aboriginal Caribs still remain.

2. The Bahamas or Lucayos are a group or archipelago which extends in a crescent-like form from Matanilla Reef, in latitude 27° 50′, to the northwest side of Santo Domingo, in about latitude 21° north, and occupy a large portion of the space included between the 72d and 79th meridian. The principal islands are situate on those remarkable flats called the Bahama Banks, to the east of Florida channel. The inhabited islands are:

Islands.	Area, sq. m.	Popula.	Islands.	Area, sq. m.	Popula.
Harbor Island	8	1,840	Ragged Islands	5	347
Eleuthera, etc.	223	4,610	Andros	782	1,030
New Providence	101	8,159	Green Cayo		7
Rum Cayo and Acklin's	32	858	Grand Bahama	451	922
Crooked Island	252	1,092	Berry Islands	31	286
San Salvador or Cat Island	379	1,828	Bimini and Gun Cayo		150
Exuma, Little and Great	142	2,027	Watling Island	44	384
Long Island	239	1,477	Inagua (Heneagué)	376	530
Abaco, etc.	501	2,011	Cayo Sal and Anguilla	16	71

—the approximate area of the whole group is stated at 5,094 square miles. The principal exports consist of salt, fruit, sponge, shells, turtle, dye-woods, bark, and fustic. In 1854 the exports were valued at £69,502, and the imports at £131,995. The government consists of a governor, council, and house of assembly. In 1854 the revenue was £23,969, and the expenditures £26,259. The Bahamas are in the diocese of Jamaica. Nassau, on New Providence, is the seat of government. San Salvador is noted as the first American land discovered by Columbus in 1492. The islands were settled by the English in 1666, and confirmed to England in 1783.

3. Turk's Island and the Caicos, which are physically a portion of the Bahama group, were erected into a presidency under Jamaica in 1848. They lie southeast of the Bahama government, between Caicos and Mouchoir Carré passage. Salt is the staple of export. The government is vested in a president and a council of eight members. The president resides on Grand Turk.

4. Jamaica is the largest of the British islands. It lies between latitude 17° 43′ and 18° 32′ north, and longitudes 76° 5′ and 78° 26′ west; length 146 and breadth 49 miles. The island is traversed by lofty mountains. The Blue Mountains, occupying the center, stretch east and west, and vary in elevation from 7,000 to 8,000 feet. The more elevated ridges are flanked by lower ranges descending to verdant savannahs, and are covered with stately forests. These hills present the characteristics of the limestone formation, of which they consist, and caverns occur in several places, and some of them are very extensive. Jamaica is well-watered, having numerous small rivers, rivulets, and springs, but none of the first, except Black River, are navigable. The cultivated products are sugar, indigo, coffee, and a little cotton. The quantity of sugar produced averages 45,000 hogsheads. Horned cattle and mules are numerous, and sheep, goats, and hogs abound. The horses are fit only for the saddle. Fish of many kinds are found on the coast and in the rivers. The principal exports, besides the above named, are arrow-root, pimento, rum, ginger, cocoa, logwood, molasses, and tobacco. The exports in 1854 were valued at £932,316, and the imports at £403,520. Government is administered by a governor and council appointed by the crown, and a house of assembly, the members of which are elected by the freeholders. The military establishment generally comprises four European regiments of the line, one West India regiment, a strong detachment of artillery, and the colonial militia. The revenue in 1854 amounted to £115,805, and the expenditures to £211,438. Spanish Town, the capital, and Kingston, the chief port, 16 miles distant, are connected by railway. The other towns are Montego Bay, Falmouth, and Lucea on the north coast, and Morant Bay on the south; besides which there are the smaller towns of Black River, Savanna-la-Mar, and Port Morant on the south, and St. Ann's Bay, Port Maria, Anatto, and Antonio on the north coast. Jamaica was discovered by Columbus in 1494, and was first colonized by Spaniards in 1503. It remained subject to the crown of Spain until 1655, when it was taken by the English.

5. The Caymans, consisting of three principal islands, viz., Grand Cayman, Little Cayman, and Caymanbrac, are distant west-northwest from Jamaica, of which government they are dependencies, between 140 and 200 miles, and are situate between latitude 19° 10′ and 19° 45′ north, and longitude 79° 30′ and 81° 35′ west. Grand Cayman, which is the only one inhabited, is 20 miles long, and from 7 to 10 miles wide; and is covered with cocoa-nut trees. On the west side is Georgetown, a large village; but the other parts are thinly peopled. The chief occupation of the natives is in catching turtle for the markets of Jamaica and other islands.

6. Trinidad, the most southerly of the British islands, is separated from the mainland of South America only by the Gulf of Paria, and is evidently a section of the continent. It is about 90 miles long by 50 wide. Approached from the north, Trinidad appears like an immense ridge of rocks—its east and south shores are also rocky and high; but on the south, or side next the Gulf of Paria, it presents one of the most magnificent pictures imaginable—the hills, valleys, and plains being covered with perennial verdure. The mountain chains run west and east: in the north, near the sea, they attain an elevation of 3,000 feet; in the center is a less elevated group, and in the south a series of beautiful hills and knolls, among which numerous delightful valleys occur. In the intervals between these ranges are several extensive plains, stretching nearly across the island. These plains are bountifully watered. The principal rivers are the Caroni, the Oropuche, and the Ortoire—the first two navigable. The nucleus of the mountains is a very dense argillaceous schist. There is no granite on the island; but blocks of milky quartz are found in every valley. Gypsum and limestone are rare. Near Point Icaque, forming the southwest extremity of the land, are several mud volcanoes; and submarine volcanoes also occur on both sides of the island—one on the west, near Cape Brea, which frequently discharges petroleum, and the other near Cape Mayero, which in March and June gives detonations resembling thunder, succeeded by flames and smoke, and afterward ejecting bitumen. But the most remarkable phenomenon of this kind in the island is the asphaltum or pitch lake, situate in the leeward side, on a small peninsula jutting into the sea a little to the northeast of Guapo Bay. Several attempts have been made to ascertain the depth of the lake, but no bottom has ever been fonnd. The climate is apparently less unhealthy than than of many of the other islands. Abundants dews cool and invigorate the atmosphere, and give an unrivaled luxuriance to vegetation. The soil is generally fertile, and the elevated parts are mostly covered with dense forests, among which the red cedar and various palms are conspicuous. The chief crop of Trinidad is cocoa. The other exportable products are sugar, molasses, rum, and coffee, small quantities of cotton and ginger, and asphaltum from the pitch lake. The exports of 1854 were valued at £380,873, and the imports at £559,067. Trinidad is a crown colony, the public affairs being administered by a governor, assisted by an executive and a legislative committee. The revenue in 1854 amounted to £101,647, and the expenditures were £101,016. Schools are established in the towns, and considerable progress has been made in educational matters. The great body of the people (43,605) are Catholics. Puerto d'España, on the northwest side of the island, is the capital, and one of the finest towns in the West Indies. Trinidad has numerous other good harbors on its west and also south coasts, particularly on the former. On the east and north shores but few occur, and those indifferent. The island was discovered by Columbus in 1498, and taken from the Spaniards by the British in 1797.

7. Tobago is situate 24 miles northeast of Trinidad. Its length, northeast and southwest, is 32 miles, and its greatest breadth about 12 miles. It is one entire mass of rocks, rising with a steep ascent on the northeast, and descending gradually toward the southwest, with some small but picturesque valleys intervening. The greatest height of the rock is 900 feet. The western part is the least mountainous, and on the south terminates in broken plains and lowlands. The island is well watered by streams and rivulets rising in the interior and passing through the lowlands to the sea. It has several good harbors along the north coast for vessels of 150 tons, and a few also on the south coast. The climate is extremely unhealthy. The chief and almost exclusive products are sugar, rum, and molasses. In 1854 the exports were valued at £49,754, and the imports at £52,307. Government is administered by a lieutenant-governor, assisted by a council, both appointed by the crown. The legislature consists of the above and a house of assembly of 16 elected members. Revenue in 1854, £8,014. Scarboro', on the southwest side of the island, is the seat of government, and the principal shipping port. Georgetown, farther east, is also a port. The island was discovered by Columbus in 1496, and ceded to Great Britain by France in 1763.

8. Grenada is situate about 72 miles north of Trinidad. It is of an oblong form, and extends north and south 24 miles, with a maximum breadth of 10 miles. Area about 125 miles; but including the Grenadines, several small islands between Grenada and St. Vincent, about 155 square miles. Grenada is one of the most beautiful of the West India Islands. Irregular masses of volcanic mountains, in some parts 3,000 feet high, traverse it north and south, and from these hills of less height branch off in lateral directions. The intervening valleys are well watered by rivulets rising in the mountains. The soils are various, but consist principally of a rich black or reddish colored mold, well adapted to every tropical production. Cotton was formerly the chief article of culture; but at present sugar, rum, and molasses stand first in the exports, which amounted in 1854 to £138,397. The imports for the same year were valued at £112,410. The government is administered by a lieutenant-governor, and a legislature consisting of a council and a house of assembly. The revenue for 1854 amounted to £21,087, and the expenditures to £1,044. St. Georgetown, in the southwest of the island, is the seat of government and the center of trade. On the south coast there is good anchorage at Egmont Harbor, and on the east at Grenville Bay. Grenada was discovered by Columbus in 1498; colonized by the French in the middle of the seventeenth century; taken by the British in 1762; recaptured in 1779, and restored in 1783.

9. St. Vincent is situate about 90 miles north of Grenada, and the same distance west of Barbadoes. The island is about 18 miles long and 11 miles wide. The central mountains of St. Vincent are bold, sharp, and abrupt in their terminations, and are clothed in magnificent forests. The valleys between the spurs open on approaching the coast, which is bold and rocky. These are well watered and very fertile. On the northeast the surface is more level and less broken; and there is a large tract at the base of the Souffrière, an extinct volcano 3,000 feet high, gradually declining toward the sea, and which is the most productive land of the colony. The climate is remarkably fine. The principal products are sugar, rum, and molasses; and in less quantities coffee, cocoa, and cotton. These, with dye-woods, arrow-root, etc., form the exports, the value of which in 1854 was £176,797. The imports for the same year were valued at £145,772. The government consists of a lieutenant-governor, a council, and assembly. The revenue of 1854 amounted to £20,247, and the expenditures to £20,853. Berquia and a number of other small islands are dependencies of St. Vincent. Kingstown, the capital, is situate on a deep bay near the southwest extremity of the island, and is a strongly fortified town. The other principal places are Calliagua, Georgetown, and Princestown. St. Vincent was discovered by Columbus on the 22d January, 1498. Since 1719 it had been occupied successively by the French and English; but in 1783 it was finally ceded to the latter nation.

10. St. Lucia lies 21 miles north-by-east from St. Vincent, and 20 miles south of Martinique; and is 27 miles in length and 14 miles wide. It is evidently of volcanic origin, and, with exception of the plains of Gros Islet in the north, and of Vieux-Fort in the south, has an elevated, rugged, and mountainous surface. Several of the heights have, at no remote period, been volcanoes, and in one of them, called Souffrière, volcanic agency is still active. The greater part of the island, and especially the more mountainous parts, are covered with masses of dense and gloomy forests; but the valleys and lower heights, the soil of which consists of decomposed lava, possess almost inexhaustible fertility. This advantage, however, is counterbalanced by the general unhealthiness of the climate. The staple product is sugar-cane, the cultivation of which is rapidly increasing. The exports of sugar amounted in 1847 to 41,850 cwts., in 1849 to 67,405 cwts., and in 1852 to 73,484 cwts. The exportation of coffee, which in 1842 amounted to 151,830 lbs., has now nearly ceased. Molasses, rum, and cocoa are also important articles of export. In 1854 the total value of exports was £55,386, and of imports £96,278. The government is administered by a lieutenant-governor and legislative council. The old French laws are still in force. Revenue £15,930, and expenditures £16,315. Castries, at the bottom of a fine bay on the northeast side of the island, is the capital. The other chief places are Vieux-Fort, Laborie, and Port Souffrière. Pidgeon Island, off the northwest coast, is the seat of a military establishment. St. Lucia was settled by the English in 1635, but was subsequently and at various times occupied by the French. In 1803 it was finally ceded to Great Britain.

11. Barbadoes is the most eastern of the islands. It appears quite detached from the Caribbean chain, being 90 miles eastward of St. Vincent, the nearest island. Length 15, and breadth 10 miles. The eastern and northern coasts are belted with coral reefs, which prevent the approach of vessels of more than 50 tons. The open coast on the south and west has been strongly fortified. The surface of the island is comparatively low, and is diversified by gently undulating hills. In the north, however, Mt. Hillaby rises to the height of 1,147 feet. The climate is hot, but not unhealthy. The soils vary considerably, but in the lowlands are very rich. The rock that supplies this soil is a tertiary shell limestone. There are several bituminous springs, some of which furnish a green tar, used as a substitute for pitch and lamp-oil. Destructive hurricanes are frequent. The cultivated crops are sugar-cane, cotton, ginger, etc. The sugar crop of 1850 amounted to 35,076, and of 1851 to 38,730 hogsheads. These, with arrow-root, aloes, etc., form the staple of export. In 1854 the value of exports was £945,849, and of imports £377,358. The governor of Barbadoes is also superior governor of all the Windward Islands. The legislature comprises the governor, a council, and house of assembly, the latter two elective. Barbadoes is also the see of the Windward diocese. The chief educational establishment is Codrington College. The public revenue in 1854 amounted to £77,877, and the expenditures to £71,680. Bridgetown, the capital, is situate on Carlisle Bay, at the southwest end of the island. This is also the chief shipping port. There are three other towns, called Oistin's, St. James', and Speight's—the first two are little more than hamlets. Speight's Town is a place of considerable importance. The island was settled by the English in 1605, and was the first in these parts colonized by that nation. It is at the present day the most prosperous and progressive of all the British West India colonies.



CARLISLE BAY, BARBADOES.

12. Dominica lies between the French islands of Martinique and Guadaloupe, and is 28 miles long, with a mean breadth of 10 miles. The existence of pumice, sulphur, etc., attests its volcanic origin. Surface mountainous—Morne Diabloten, the highest summit, is 5,300 feet above the sea. Valleys fertile, and watered by numerous streams. The island contains abundance of timber. Shores but little indented, and devoid of harbors. The principal products are sugar, molasses, rum, coffee, cocoa, oranges, and cotton. In 1854 the value of exports was £78,155, and of imports £52,504. The fisheries off the coast are very productive. The government consists of a lieutenant-governor, council, and assembly of 20 members. Revenue in 1854, £10,654, and expenditures £12,887. The principal towns are—Roseau or Charlotte Town, the capital, on the southwest side, and Portsmouth, on Prince Rupert's Bay, on the northwest. Dominica was discovered in 1493, and was claimed alternately by England, France, and Spain, but was finally ceded to Great Britain in 1763.

13. Montserrat, nearly equidistant (30 miles) from Nevis, Antigua, and Guadaloupe, is of an oval form, 10 miles long, and about 7 miles wide. The east side of the island is mountainous and covered with forests. On the west the land slopes down toward the sea. Sugar, rum, and molasses are the chief products of cultivation. Cotton, arrow-root, and tamarinds are also among its exports. Value of exports in 1854, £14,515, and of imports £8,963. Government is administered by a president, council, and house of assembly. Revenue £3,219, expenditures £3,188. Plymouth, the capital, is on the southwest side of the island. Montserrat was discovered by Columbus in 1493, and in 1632 settled by the English.

14. Antigua, the chief island of the Leeward group, lies about 48 miles east of St. Christopher, and is about 18 miles long and 9 broad. The shores are high and rocky, and indented on all sides by harbors, bays, and creeks, and lined on the north and east with a number of small rocky islets. The only elevated land is a range of rocky hills, called the Sheckerly Mountains, which nowhere exceed 1,500 feet in height. There are no rivers on the island, and its springs are brackish. The principal exportable products are sugar, rum, molasses, rice, arrow-root, and tobacco. In 1854 the exports were valued at £215,700, and the imports at £171,076. Government is vested in a governor, council, and assembly. The governor is also governor-in-chief of the Leeward Islands. Revenue in 1855, £25,578, expenditures £24,407. The diocese of Antigua also includes all the Leeward Islands. St. John, the capital,

is built on the northwest side of the island, and at the bottom of the bay of the same name, which forms an excellent harbor. English Harbor, on the south side, has a government dock-yard, and is capable of receiving the largest ships. Antigua was discovered by Columbus in 1493, and settled by the English in 1632. The island has suffered severely from earthquakes and hurricanes.

15. St. Christopher, to the west of Antigua, lies northwest and southeast, 17 miles in length and 6 miles broad, and is separated from Nevis by a strait only a mile and a half wide. The center of the island is occupied by rugged, barren mountains, which contain some hot springs. The highest point, called Mount Misery, 3,711 feet above the sea, is an exhausted volcano, the crater of which is still apparent. The soil of the plain is chiefly a dark-gray loam. Sugar is the principal object of cultivation, and of this the crop in 1851 amounted to 7,270 hogsheads. Rum and molasses are also exported. The value of exports in 1854 amounted to £133,089, and of imports to £107,965. The island is governed by a lieutenant-governor, and sends 10 members to the Antigua assembly. The revenue in 1854 amounted to £21,386, and the expenditures to a like sum. Basseterre, the capital, is situate on the south side of the island. St. Christopher was discovered by Columbus in 1493, and settled by the English in 1623. In 1782, and again in 1805, it was taken by the French, but not retained.

16. Nevis, off the southeast extremity of St. Christopher, consists almost entirely of a single conical mountain of volcanic origin, rising with a gentle ascent from the sea to a height of 2,500 feet, and surrounded at the base by a level border of extremely fertile land. Only about one fourth the surface is capable of cultivation, the high parts being rocky and barren. The exportable products are sugar, rum, and molasses. The colony exported in 1854 to the value of £32,794, and the imports for the same year amounted to £20,933. The island is governed by an administrative council and assembly. Revenue in 1854, £4,252. Charles-town is the capital. Nevis was first colonized by the English in 1628.

17. Barbuda, 27 miles north of Antigua, is a low, level, and fertile island. It is the private property of the Codrington family, and the only proprietary government in the West Indies. The inhabitants, chiefly colored, are employed in breeding stock and the cultivation of corn, cotton, pepper, indigo, and tobacco. No sugar is grown. The air is so mild and pure that invalids from other islands resort here for the restoration of health.

18. Anguilla is the most northern of the Leeward Islands, and distant about five miles from St. Martin's. It is 16 miles long and 4 broad, but so low and flat that it can not be seen at a great distance. The soil is calcareous and not very productive. In the center of the island is a saline lake, which yields a large quantity of salt. The inhabitants are chiefly engaged in cattle-breeding and salt-raking, and also cultivate small quantities of sugar, cotton, and tobacco. The island is governed by a magistrate elected by the colonists, but subject to the approval of the governor of Antigua. The town is situate on the east side and near the northeast end of the island; it is a small place, with little trade. Anguilla was settled by the English in 1659. Anguilleta, Dog, and other islets, lie off the coast.

19. Virgin Islands are a group east of Porto Rico, and are severally in the possession of Spain, Great Britain, and Denmark. The islands belonging to the British are Tortola, Virgin Gorda or Penniston, Jos Van Dykes, Guana, Beef, Thatch, Anegada, Nichar, Prickly Pear, Camanas, Ginger, Cooper's, Salt, St. Peter, etc. Throughout these islands a series of precipitous and rugged mountains and rocks run east and west; and the shores are indented with bays, harbors, and creeks. The principal products are cotton, sugar, molasses, rum, etc. In 1854 the exports were valued at £5,756, and the imports at £4,500. The affairs of the island are administered by a lieutenant-governor with a council and assembly. Revenue, 1854, £2,346. Tortola, on the island of the same name, is the capital, and has a magnificent harbor, perfectly land-locked, which in time of war has sheltered 400 vessels waiting for convoy. The Virgins were discovered by Columbus in 1493; settled by the Dutch in 1648, and captured by the English in 1666.

[*Weights, Measures, and Moneys.*—Generally same as in the United Kingdom.]

FRENCH WEST INDIES.

1. The French West Indies are comprised in the governments of Guadaloupe and Martinique. Area 1,013 square miles. Population 276,453.

GUADALOUPE GOVERNMENT.

2. Guadaloupe comprises the island so called, the islands of Marie-Galante, Desirade, and Les Saintes, and about two thirds of the island of St. Martin.

Islands.	Area, sq. m.	Popula. (1849).	Chief Places.	Popula.
Guadaloupe	529	134,574	Basse-Terre	3,876
Marie-Galante	59	12,749	Grandbourg	1,200
Desirade	17	2,568	Anse-Galet	400
Les Saintes	5	1,311	——	—
St. Martin (north part)	21	3,773	Marigot	300
Total	631	154,975		

—of the population about three fourths the whole are Africans and their descendants, and the remainder French, creoles, and mixed races.

3. Guadaloupe, the largest of the islands, is composed of two divisions or islands, separated by a strait called Rivière Salée (Salt River), about 5 miles long and from 30 to 100 yards broad, sufficiently deep for vessels of 60 tons. It is situate in latitude 16° north, and longitude 61° 30′ west. The west or larger island is Guadaloupe proper, divided into Basse-Terre and Cabes-Terre, and is 27 miles long by 15 miles wide. The eastern island, called Grande-Terre, is nearly 30 miles long by 10 to 12 broad. Guadaloupe proper is of volcanic formation, and is traversed north and south by a ridge of hills having a medium height of 2,296 feet; and with the culminating points in La Souffrière, an active volcano, 5,108 feet high, and in Grosse-Montagne, Deux-Mamelles, and Piton de Bouillante, extinct volcanoes. Grande-Terre, on the other hand, is generally flat, composed of madrepores and marine detritus, and nowhere rises higher than 115 feet above the sea. Guadaloupe has numerous small streams, running in deeply-cut beds, but becoming dry in summer. The principal are the Goyaves, Lamentin, and Lezarde, which are navigable for canoes. Grande-Terre has only a few springs of brackish, undrinkable water. The climate is hot and unhealthy, and the atmosphere remarkably humid. Hurricanes are frequent and destructive. The soil is fertile and well-cultivated. The mountains are covered with fine forests, and the marshy coast of Basse-Terre with mangroves and manchineel trees. The products natural and cultivated are similar to those of the West Indies generally; but in regard to sugar, the Tahiti cane is the only kind cultivated. The principal anchorages of Guadaloupe are—the Bay of Mahault and the roads of Basse-Terre, the latter in the southwest, with the town of the same name, capital of the government, on its shore. Villages are found at short distances along the whole coast. Grande-Terre possesses the anchorages of Moule and Point-à-Pitre. The latter, at the south entrance to the Salt River, is esteemed one of the best in the Antilles, and on it was situate the important town of St. Louis or Point-à-Pitre, which was destroyed by an earthquake on the 8th February, 1843, on which occasion 4,000 of the inhabitants perished.

4. Marie-Galante, 14 miles south-southeast of Guadaloupe, is about 12 miles long by 8 miles broad, and is traversed north and south by a range of hills parallel to the east coast, where it presents a front of high and precipitous rocks. The west and north sides of the island are level, and parallel with the former is a narrow lagoon seven or eight miles in length, separated from the sea by a low, narrow tract of sand. The island abounds in woods, particularly the wild cinnamon tree. Its principal town, Grandbourg or Basse-Terre, stands near the southwest point; other towns are Les Carmes on the west, and St. Anne on the east shore.

5. Desirade or Deseada lies about four miles east from the southeast extremity of Grande-Terre, and is about eight miles long by three miles wide. It rises from the sea with a steep ascent, and then extends in a table-land, which consists of limestone rocks, in which many caverns occur; but it is without water. The soil in some places is a deep black mold and fertile—in others it is sandy and unproductive. The only anchorage is at the Anse-Galet, on the east side of the island.

6. Les Saintes are a group of rocky islets, six or seven miles south of Guadaloupe, and consist of lofty and steep peaks, some of which are united by flat ground and ridges of inferior elevation; others are separated by the sea. The two largest are called Terre d'en Haut and Terre d'en Bas, or the upper and lower land—the first is about four miles in circuit, and contains a town or village on its west side. The inhabitants are poor, and live chiefly on fish and vegetables.

7. St. Martin, the northern portion of which belongs to the French, and forms a dependency of Guadaloupe, is a small island immediately south of the British island of Anguilla, in latitude 18° 5′ north, and longitude 63° 6′ west. The southern portion is held by the Dutch. Its form is nearly that of an equilateral triangle—each side about seven miles in length. Area 33 square miles. It is deeply indented with bays and lagoons, some of which afford good anchorage; and is upon the whole hilly, the highest part being 1,361 feet above the sea. It is watered by several rivulets; and in the south are lagoons from which great quantities of salt are obtained by the Dutch. The climate is remarkably mild and is considered healthy.

8. The chief cultivated products are sugar, rum, molasses, coffee, and other West India staples. The sugar crop of Guadaloupe amounts to about 60,000 hogsheads annually. The exports for the year ending 31st December, 1851, consisted of—muscovado sugar, 20,048,368 kilogrammes; coffee, 221,218 do.; cotton, 20,443 do.; cocoa, 11,425 do.; cassia, 165 do.; molasses, 13,879 litres; and rum, 142,139 litres, etc. The trade is chiefly with France. The products and commerce of the dependent islands are similar, but on a smaller scale. A considerable quantity of fish is taken in the neighboring seas.

9. For administrative purposes Guadaloupe and its dependencies are divided into three arrondissements, and these again into cantons and communes. The government consists of a governor, assisted by a privy council of six members, and a colonial council of 30 members, the latter elected by the landowners and tax-payers. Justice is administered by a superior court and two courts of assize. The colonial council elects two delegates to represent the people in the home colonial council. Local affairs are administered by municipal councils.

10. Guadaloupe was discovered by Columbus in 1493. In 1635 the French settled upon the island and kept it until 1759, when it was taken by the English. It was subsequently and at various times captured and recaptured by these nations, and finally ceded to France in 1814. Its immediate dependencies of course shared the fate of the central island. The island of St. Martin was settled by the French and Dutch in 1638; but these were expelled by the Spaniards, who themselves abandoned the island in 1750; and the original settlers resumed possession.

MARTINIQUE GOVERNMENT.

11. Martinique, the government of which covers the island of the same name, lies in latitude 14° 45′ north, and longitude 61° 10′ west, and about 20 miles north of St. Lucia. It is of irregular form, high and rocky, about 45 miles long and from 10 to 15 miles wide. There are six extinct volcanoes on the island, and one of the craters is of large dimensions. The loftiest summit, Mont Pelée, is 4,450 feet above the sea. Extensive masses of volcanic rocks cover the interior, rise to a great elevation, and extend from the mountains to the shores, where they form numerous deep indentations along the coast. Between the volcanic rocks broad, irregular valleys of great fertility occur. Those on the west side, called Basse-Terre, are more extensive, fertile, and level than those on the east side, called Cabes-Terre. The climate is hot, but not unhealthy, being tempered by regular breezes. Hurricanes and earthquakes are not unfrequent. About two fifths of the surface are under cultivation, the remain-

der being covered with trees or occupied by naked rocks or disintegrated pumice. The mountain slopes are for the most part covered with primeval forests, in other parts the slopes are cultivated to the height of 400 feet. Numerous streams flow down from the height, most of them mere rivulets; but a few of them are navigable for boats a short distance from their mouths, and are used for the conveyance of produce to the shipping. For administrative purposes the island is divided into two arrondissements, 14 cantons, and 26 communes. Government is conducted by a governor and privy council of seven members; and the colonial council consists of 30 members. The population in 1849 numbered 121,478 souls. The principal productions are sugar, coffee, cocoa, etc. The exports for the year ending 31st December, 1851, consisted of—sugar, muscovado, 23,406,696, and clayed, 809 kilogrammes; coffee, 110,933 do.; cocoa, 149,033 do.; cassia, 163,580 do.; logwood, 50,200 do.; molasses, 33,754 litres; and rum, 2,064,511 litres. The island has several good harbors, the best of which is Port Royal, on the southwest side. The principal town is St. Pierre, on the northwest; and there are villages on every part of the coasts. The island was discovered by Columbus in 1493, and in 1635 was settled by the French. In 1794 it was captured by the English, and restored in 1802; and was subsequently, between 1809 and 1814, held by the English, who at the close of the war again released it to France.

[*Weight, Measures, and Moneys.*—Same as in France.]

DUTCH WEST INDIES.

1. The colonial possessions of the Netherlands in the West Indies comprise the islands of Curaçoa, Bonaire, Aruba, etc., lying off the coast of Venezuela, and St. Eustatius and Saba, and part of the island of St. Martin, among the Leeward Islands. These are as follows:

Islands.	Area, sq. m.	Population. Free.	Slave.	Total.	Chief Places.
Curaçoa	188	11,225	5,573	16,798	Wilhelmstadt.
Bonaire	83	1,478	742	2,220	Village on southwest side.
Aruba	28	2,443	602	3,045	Fort Zoutman.
St. Eustatius	97	782	1,150	1,932	St. Eustatius.
Saba	16	1,014	649	1,663	Landing on south side.
St. Martin (south part)	12	1,227	1,612	2,839	—.
Total	369	18,169	10,328	28,497	

—of the total population 8,595 are Protestants, 19,072 Roman Catholics, and 837 Jews; the Roman Catholics preponderate in Curaçoa, Bonaire, and Aruba, and the Protestants in St. Eustatius, Saba, and St. Martin. The Jews are almost exclusively (829) found in Curaçoa.

ISLANDS OFF THE VENEZUELAN COAST.

2. Curaçoa is situate 46 miles north of the coast of Venezuela, and in latitude 12° 15′ north, and longitude 60° west. It is about 30 miles long by 6 miles broad, rising wild, bare, and abrupt, and consists of two ridges of greenstone, connected by a limestone dyke a mile and a half thick. Iron and copper occur, but are not wrought. Both the atmosphere and soil are dry, but the heat is tempered by the sea-breeze. Indigo, cotton, and cocoa, once cultivated, are now abandoned; and the people depend either on the rearing of cattle and other stock, or on the salt which is produced here in great abundance. Small quantities of sugar and tobacco are also produced. The opuntia, among other cacti, grows on the island and feeds the cochineal insect, to which increasing attention is paid. Many fruits are cultivated—tamarinds, bananas, oranges, and the lime; from the last named the famed Curaçoa liqueur is made. The shores teem with magnificent lobsters, crabs, and shell-fish; and the seas furnish plenty of excellent fish. Sea and land turtle abound. Salt, however, is the great staple, and of this about 250,000 barrels are exported annually. In 1851 the number of vessels entered was 605, the cargoes of which were valued at between 2,000,000 and 2,500,000 florins. The principal harbor, Santa Anna, is on the southwest side of the island. The entrance is very narrow—on the eastern side of it is Fort Amsterdam, and on the opposite side of the harbor is the town of Curaçoa or Wilhelmstadt, said to be one of the handsomest in the West Indies. Curaçoa was settled by the Spaniards early in the sixteenth century. It was captured in 1632 by the Dutch, and in 1798 by the English. The peace of Amiens restored it to the Dutch. The British again took it in 1806, and finally ceded it to the Netherlands in 1814.

3. Bonaire (Buen-Ayre), 27 miles northeast of Curaçoa, is about 18 miles long and from 4 to 5 broad. It is of very irregular shape, high and hilly, chiefly composed of calcareous deposits, but in some places of pure quartz, and is thickly wooded. The soil is hard and dry, suffering from deficiency of rain, yet not without excellent pastures. On the south coast the land is covered with low knolls clothed with verdant creepers and cacti, which yield considerable cochineal. The hillsides are covered with forests of Brazil and yellow-wood, but there are no fruit-bearing trees. Large quantities of salt are produced. The roadstead is on the southwest side. In 1851 the number of vessels entered was 265 (160 in ballast), and there was exported 68,449 barrels of salt. The island is chiefly used as a penal depôt by the Dutch West India authorities.

4. Aruba (Oruba), 50 miles west-by-north of Curaçoa, is about eight miles long and two miles broad, and is surrounded by rocks, and difficult of approach. The surface is generally stony, though in some parts flat and sandy, and notwithstanding the want of water there are some good meadows. Excellent iron ore and a little gold are found; but the chief occupation is cattle raising. In 1851 the trade of the island occupied 65 vessels. Curaçoa Chica, the Bird Islands (claimed also by Venezuela), etc., also belong to the Dutch, but are not inhabited. The latter is a small group southeast of Bonaire, and produce guano.

ISLANDS OF THE LEEWARD GROUP.

5. St. Eustatius is situate 11 miles northwest of St. Christopher, in latitude 17° 32′ north, and longitude 63° 5′ west, and is scarcely 30 miles in circumference. There are two hills—Punch Bowl Hill and Signal Hill, the latter an extinct volcano; between is a deep valley, forming the interior of the island. The level parts are covered with cane fields and provision grounds. Game is plentiful, and is exported to other islands. The commerce of the island, which was formerly large, is now almost extinct, and its population, which in 1780 numbered 25,000, is reduced to a few hundreds. The town, divided into the upper and lower town, lies on a level piece of ground on the southwest side of the island. The roadstead is open and unprotected, but has good anchorage in certain winds.

6. Saba lies about 15 miles west-northwest from the north point of St. Eustatius. It rises abruptly from the sea, and is inaccessible except upon the south side, where are a little creek and landing-place. The island is inhabited by a few Dutch families, who cultivate the cotton-plant and manufacture stockings, shoes, etc.

7. St. Martin, of which the Dutch possess the southern portion, has been already described. In 1851 salt to the amount of 148,525 barrels was obtained, and the arrivals and clearances amounted to 334 vessels.

8. These six islands and their dependencies form a single government, the seat of which is Wilhelmstadt, on the island of Curaçoa. The administration of affairs is vested in a governor-general and a colonial council. The president and vice-president of the council are chosen by the governor. The receipts and expenditures in 1851 were as follows:

	Curacoa, Bonaire, Aruba, etc.	St. Eustatius.	St. Martin and Saba.	Total.
Receipts	198,944 florins	6,321 florins	35,225 florins	240,490 florins.
Expenditures	298,625 "	28,144 "	40,294 "	467,073 "

—the deficiencies being made up by the home government. The military garrisons collectively at the close of 1850 consisted of 14 officers and 408 soldiers.

[*Weights Measures and Moneys.*—Same as in France.]

DANISH WEST INDIES.

1. The West India possessions of Denmark—St. Thomas, Santa Cruz, and St. John, with their dependencies, belong to the Virgin group, and lie centrally in latitude 18° north, and longitude 64° 30′ west. The extent, population, etc., of these are as follows:

Islands.	Area, sq. m.	Popula. (1850),	Chief Towns.	Popula.
St. Thomas	27	13,666	Charlotte-Amalia	12,383
Santa Cruz	78	23,729	Christianstadt	6,127
St. John (Jan)	22	2,228	Christiansborg	186
Total	127	39,623		

—in St. Thomas about a third and in Santa Cruz and St. John about three fourths of the inhabitants are blacks.

2. St. Thomas lies about 38 miles east of Porto Rico, and in latitude 18° 20′ north, and longitude 64° 55′ west. The greatest length, east and west, is 12 miles, and the average breadth less than 3 miles. It has a rugged and elevated surface, which attains its greatest height toward the center, and descends sometimes gradually, but oftener abruptly to the shore. It was once well-wooded, but is now almost bare, and from this cause suffers much from a deficiency of rain; nor is its soil fertile. The area under crop is only about 2,500 acres, of which nearly one half are planted with sugar-cane. A large number of islets and keys lie around its shores. The island enjoys the privileges of a free harbor, and its trade is consequently very extensive. The harbor and town (Charlotte-Amalia) lie about midway of the island, on the south side. The anchorage is very extensive and secure, and the opening seaward is only 1,030 yards wide. The town lies around the north side of the harbor, and contains many substantial stores and dwellings. Here centers a large trade fostered by the freedom of the port. At present the value of goods imported into St. Thomas may be set down at $5,000,000; probably one half of which is brought from England, a fifth from the United States and British America, and the rest from France, Hamburg, Altona, Flensborg, Bremen, Holland, etc. It is estimated that two fifths of these imports are sent to Porto Rico, and the remaining three fifths to Santo Domingo, Cuba, Venezuela, New Granada, Curaçoa, and the Windward Islands. In 1850 there arrived 2,196 vessels (235,843 tons): this



PLAZA IN CAPITAL.

does not include the British mail steamers, the tonnage of which entering amounts to about 42,000 tons annually. St. Thomas was settled by the Danish West India and Guinea Company in 1671. In 1775 the Company's rights were conveyed to the king, who in 1794 threw open the port to vessels of all nations. This policy, and the general neutrality observed by Denmark in the wars of Europe, concurred in fostering its commerce, although much is due to its admirable geographical position; and accordingly it became a chief market, and in time of war the only channel through which the products of all the West India colonies could be safely conveyed. A short interruption to its prosperity occurred in 1801, when the island was given up to the British, who held it however for only ten months. Early in 1802 it was restored to Denmark, and resumed all its former activity. In 1804 and again in 1806 immense losses in merchandise and other property were occasioned by fires in the town. In 1807 St. Thomas was again, by capitulation, transferred to Great Britain, and retained until April, 1815, when the Danes once more became masters of the island.

3. Santa Cruz is the largest and most southern of the Virgin group, and lies about 65 miles east-southeast from Porto Rico, in latitude 17° 42′ north, and longitude 64° 48′ west. The island has its greatest length east and west, about 20 miles, and varies in breadth from 2 to 6 miles. It is generally flat, though a range of low heights follows the line of the north shore, and is well watered and fertile. The climate is at all times unhealthy; and hurricanes and earthquakes are frequent. About two fifths of the island are in sugar-cane plantations, and about one half is occupied with general crops, only a small portion remaining uncultivated. The soil is not very rich, but tolerably fertile, yet owing to droughts the crops are uncertain. On this account the sugar crop varies from 12,000 to 40,000 hogsheads. The cultivation of coffee, indigo, and cotton has been generally abandoned for many years. Christianstadt and Frederickstadt are the principal towns—the first on the north and the latter on the west of the island. Christianstadt is the capital and residence of the governor-general. Its harbor is encumbered with many shoals, and difficult of access. On the whole the island is far less eligible for commerce than St. Thomas, but in resources more important. Santa Cruz was discovered by Columbus on his second voyage. In 1643 the Dutch made a settlement on it, but three years later were expelled by the English. In 1650 the English were in their turn dislodged by the Spaniards, who laid the island waste. In 1651 it was purchased for the Knights of Malta, who sold it in 1664 to the French West India Company, and in 1696 the Company's claims were sold to the Danes. From this period it followed the fortunes of St. Thomas.

4. St. John or St. Jan is situate about 24 miles east from St. Thomas, in latitude 18° 18′ north, and longitude 64° 49′ west. It is about 12 miles long by 4 miles broad, rising to a considerable height in the center, and having generally a very broken, uneven surface. The soil is indifferent, and water scarce; sugar and cotton are produced in small quantities, and live-stock is also reared. On the southeast side a promontory forms two coves, which are defended by a fort on the north point of the entrance, and another on Duck Island, close to the south point. This promontory has a town called Christiansborg or the castle. The anchorage is good. St. John in its history is intimately connected with St. Thomas, and has generally belonged to the same masters.

5. These three islands, St. Thomas, Santa Cruz, and St. John, with their dependencies, form together a single general government, and are governed as crown colonies by an appointee of the king of Denmark, who resides at Christianstadt, on the island of Santa Cruz. The governor is assisted by two councilors; and in each island there is a burgher council, which has cognizance over all purely municipal affairs. Justice is administered according to the code of Charles V., together with the rescripts of the crown, which constitute the law. The general revenue for the year ending 31st March, 1851, amounted to $286,782; that of Santa Cruz to $168,950, and that of St. Thomas and St. John to $117,832. The aggregate expenditures for the three islands amounted to $335,444. The municipal revenues are separate, and are administered by the councils. The king derives a revenue, which does not appear in the above summary, from the large number of the estates which he holds in the islands.

[*Weights, Measures, and Moneys.*—Same as in Denmark.]

SWEDISH WEST INDIES.

The only colonial possession of Sweden in the West Indies is the island of St. Bartholomew. This island belongs to the Leeward group, and is situate centrally in latitude 17° 50′ north, and longitude 62° 52′ west, distant 12 miles from St. Martin and about 30 from St. Christopher. It is about eight miles long by from two to three miles wide. St. Bartholomew is of an irregular shape, and deeply indented by numerous small sandy bays, separated by deep and steep rocky acclivities of moderate height. In the interior it is hilly, but its loftiest elevations nowhere exceed 1,000 feet above the sea. In most parts it is barren, but has numerous well-cultivated valleys. The population is estimated at about 8,000 or 9,000, of which about 7,000 are blacks and colored persons. Of the whites, nearly one half are of Irish descent, and the remainder chiefly of French extraction. The affairs of the island are administered by a royal governor. The only harbor is La Carenage, a safe and commodious one, and much frequented. It is on the west side of the island. Close by it is Gustavia, the principal town, a thriving place, and having considerable commerce with the neighboring islands. St. Bartholomew was first settled in 1648 by the French. In 1689 it was taken by the English under Admiral Thornhill; but in 1697 was restored to France. In 1746 it was again taken by the English, and was once more given up under the treaty of Aix-la-Chapelle. In 1785 it was finally ceded by France to Sweden, and has since continued subject to that power.

[*Weight, Measures, and Moneys.*—Same as in Sweden.]



CEIBA OR MAHOGANY.

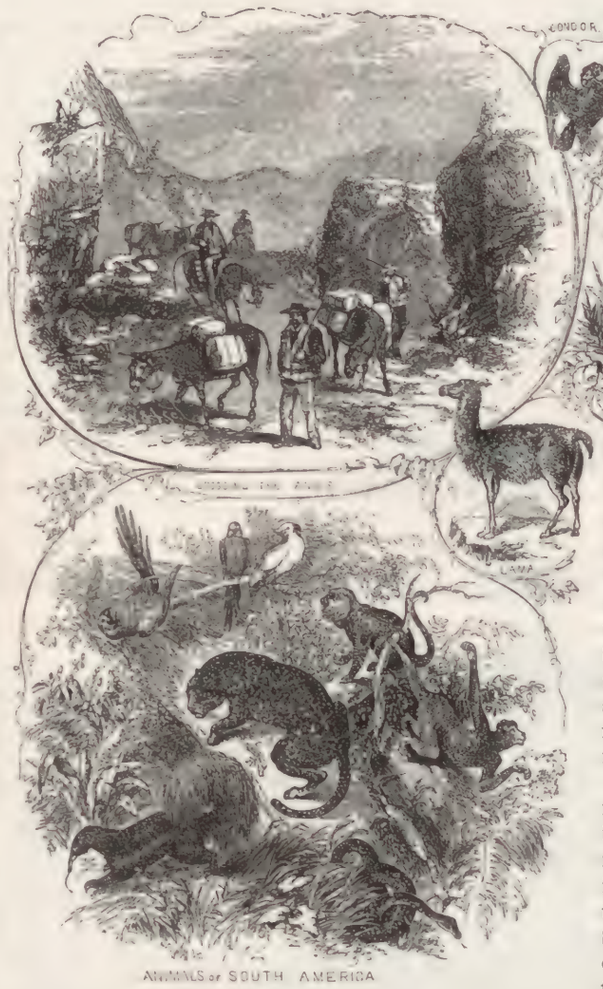


BAMBOO.



SHADDOCK TREE.

DESCRIPTIVE GEOGRAPHY OF SOUTH AMERICA.



ANIMALS OF SOUTH AMERICA.



FORDING A RIVER.

1. South America is a vast body of land, forming the southern section of the New World. It has the shape of an irregular triangle, of which the Isthmus of Panama, Cape San Roque, and Cape Horn are the ultimate points. The surface area has been estimated at 6,800,000 square miles.

2. It is connected in the northwest with North America by the isthmus above named; but on all other sides is bounded by the ocean—on the north by the Caribbean Sea, on the northeast and east by the Atlantic, and on the west by the Pacific.

3. The most easterly extension of the mainland is Cape San Augustin (34° 30′ west), and the most westerly is Cape Parina (81° 45′ west), its greatest width being on the parallel of the latter (near 5° south), where it measures about 3,200 miles. The greatest extension of the land, north and south, is near the 70th meridian, and measures about 4,800 miles; the extreme points being the peninsula of Paraguana (12° 30′ north) and Cape Horn (55° 59′ south), the latter being also the most southerly land of America.

4. The peninsular condition of South America determines the great extent of its sea-coast; and in this, as well as in the absence of any very great indentations of the ocean, it presents some resemblance to Africa; but it also presents the striking contrast of more continuous and elevated mountain chains and a more complete development of its water-system. The extent of coast that it offers to the Caribbean Sea and the Atlantic Ocean is roughly estimated at 11,000 miles, and the coast washed by the Pacific Ocean has an approximate continuity of 5,800 miles.

5. The extreme southern points of South America and the southern coast on the Pacific bear some analogy to the northwest coast of North America in their irregular outline, and in the number of islands that line them. This rugged and island-bound coast extends as far north as the Archipelago of Chiloe (42° south); and farther northward to the 40th parallel the mountains press close on the shore, instead of leaving a space between their bases and the ocean, as is the case northward of that parallel. Beyond this, northward, the coast presents few irregularities, except, perhaps, the great bend that occurs about the latitude of Lake Titicaca (corresponding to a change in the direction of the Andes), and the indentations known as the Gulf of Guayaquil and the Bay of Panama. On the Atlantic coast there are several large gulfs and estuaries, especially in the southern division. Of these the estuary of La Plata is the most conspicuous. On the northeast are the great estuaries of the Amazon and the Orinoco. The Caribbean coast is more irregular and more deeply indented, presenting the Gulf of Darien, that of Venezuela, and the Gulf of Paria, etc.; and between the islands of Aruba and Margarita the scoop inland, though not very irregular, is wide and extensive.

6. The aspect of the interior presents the most striking contrasts of lofty mountains and extensive plains in the world. It exhibits a no less remarkable variety of climate, from the summit of its snow-clad mountains to the low, burning level of its intermediate plains; and from the sterile heights of the Andes and the woodless plateaux of Quito and Potosi to the low flats of the Orinoco and the Amazon, covered with forests almost excluding the light of day, and adorned with all the magnificent foliage of the tropics. Geographically, about three fourths of the surface lie between the tropics, and the remainder in the temperate zone; but, in fact, from local elevation and depression, every description of climate and of vegetable and animal life is recognized within its limits.

7. The mountainous or elevated tracts of South America coincide in their direction nearly with the contour of the coast; which, in fact, they shape, and from which they are seldom far distant. The most remarkable of these are the Andes, which stretch along the west coast, north and south, attaining great elevation in contrast to their width, and ranking in magnitude second only to the Himalayas in Asia. In their southern part they form the group of islands constituting the Archipelago of Tierra del Fuego, and are penetrated in every direction by narrow inlets of the sea, ending often in glaciers formed from the snow on the summits, here frequently 6,000 feet high. Northward of these insular mountains the main line is frequently divided by wide longitudinal valleys, presenting lofty walls on either side, and in parts forming two or more separate ranges. The highest culminations are those called Tupungato and Aconcagua, in Chile, and Sahama, in Peru, which attain respectively 22,450, 22,301, and 22,350 feet above the sea-level. In the Isthmus of Panama the Andes are depressed, and there terminate, and do not, as was formerly supposed, constitute one system with the North American mountains. The slopes of the Andes are rugged and hilly, and from both sides numerous branches are thrown off. They are most precipitous toward the Pacific, the distance from which is seldom more than a hundred miles.

8. This gigantic mountain chain is traversed in its different parts by numerous roads or passes, at heights almost equal to those of the extreme summits of the European ranges. Most of them are narrow, rugged, steep, and sometimes slippery and dangerous, passing through gorges, across yawning chasms, along brinks of enormous precipices, and up nearly perpendicular rocks; nor can their passage be even attempted with success except by the courageous and well-provided traveler. The most elevated of these transverse passes are—that of San Mateo (15,760 feet), which leads from Lima to Turma and Pasco, and that of the Alto de Toledo (15,590 feet), which furnishes the road from Arequipa to Puno. Many others reach from 12,000 to 15,000 feet elevation. Besides these routes, a great commercial road runs longitudinally along the Andes the whole distance from Trujillo (latitude 8° 5′ north) to Popayan (latitude 2° 25′ north), in the valley of the Cauca, a distance not much less than 1,000 miles.

9. From that branch of the Andes which incloses the Lake of Maracaybo to the Caribbean Sea, the second mountain-system, or that of Venezuela, commences. This range strikes off at right angles in two parallel chains running due east, the more northern of which keeps close to the sea, and may be traced into the island of Trinidad. The highest point of this chain is the Silla de Caracas, which has an elevation of 8,632 feet. In consequence of this range, no rivers of magnitude descend to the sea.

10. The third mountain-system of South America is formed of the highlands of Guayana, which separate the plains of the lower Orinoco from those of the Negro and Amazon, and form, with the southern chain of Venezuela and the Andes, the boundary of that immense plain which is drained by the Orinoco. This mountain-system runs from east to west, perhaps for 600 to 700 miles, and consists of several parallel chains, some of which in British Guayana rise to the height of 4,000 or 5,000 feet, and in Mount Roraima even to 7,450 feet. The culminating point, however, is Mount Maravaca, a little north of the Cassiquiare, which attains the height of 10,500 feet.

11. The mountains of Brazil which run parallel with the coast consist of several parallel chains. These form the fourth mountain-system of South America. In their position, and in relation to the great basin of the continent, they present a most striking analogy to the

Alleghany system of North America. Between the Andes and these highlands lies the extensive plain drained by the Parana, and between the mountains of Guayana and those of Brazil the immense level that belongs to the lower course of the Amazon.

12. There are altogether upward of thirty active volcanoes in South America. They all belong to the Andes. The loftiest of these burning mountains is Gualateiri, in Peru (latitude 20° 13′ south, and longitude 69° 17′ west), 21,960 feet above the sea, and probably the loftiest volcano on the globe. The Andes in Ecuador, however, present the greatest number of volcanoes, among which are Pichincha, 15,936 feet, in the west range, and Sangay 16,827 feet, Tungurahua 16,960 feet, Cotopaxi 18,875 feet, Antisana 19,370 feet, Cayambe 19,534 feet, and Cumbal 16,824 feet in the east range. The heights of the others vary from 13,000 to 18,000. The latest eruption occurred in 1831, with Pichincha, which is situated but a short distance south of the equator. Earthquakes are frequent on the western foot of the Andes, especially in Chile; and on several occasions vast tracts of country have had their relative levels permanently altered by these convulsions of the earth.

13. The plains of South America are, as heretofore mentioned, of vast extent, and are variously designated as the pampas of the Argentine country, the silvas of the Amazon, and the llanos of the Orinoco.

14. The pampas are elevated about 1,000 feet above sea-level, and occupy an area computed at 300,000 square miles. Marked by their vegetation and other characteristics, from east to west they have four distinct regions: the first, west from Buenos Ayres, is covered with thistles and lucern of vivid green, so long as the moisture from rain lasts; the second is covered with long grass intermixed with gaudy flowers; the third is a tract of swamps and bogs, and the fourth a border of thorny bushes and dwarf trees, reaching to the Andes. The grassy plains of this level territory are occupied by thousands of wild cattle and horses.

15. The silvas of the Amazon, lying in the center of the continent, are covered with wood, and so densely as to prevent land-travel. They extend for 1,500 miles along that river, and vary in breadth from 300 to 800 miles, and are inhabited solely by various wild animals.

16. The llanos of the Orinoco occupy 150,000 square miles, between the delta of the Orinoco and the Rio Coquete, and are so perfectly flat as seldom to present an eminence of a few feet in height. They are nearly destitute of trees; but after the rains they are clothed with fine grass and afford an abundant pasturage to countless herds which roam over them. The dry season converts them into desolate wastes.

17. Besides these three great tracts of level country, there is the desert of Patagonia, occupying nearly 200,000 square miles, and the most barren of all the plains of South America. For the most part it is occupied by sandy, sterile dunes, intermixed with stone and gravel, and occasionally diversified by huge boulders, tufts of brown grass, low springy bushes, brine lakes, saline incrustations, and basaltic platforms.

18. Upon the western coast a narrow plain extends between the foot of the Andes and the sea, excepting to the southward of the 40th parallel, where the mountains rise immediately from the waters of the ocean. The widest part of this plain is that which stretches along the base of the Andes in Chile, where it is from 60 to 100 miles across. This is in general well watered and fertile.

19. That portion of the coast plain which lies between 27° and 23° south latitude is a perfectly sterile tract, called the desert of Atacama. Within its limits not a drop of rain ever falls, and the air is only occasionally refreshed by mists and dews. The surface of this region is covered with hillocks of loose sand or with naked rocks.

20. Farther to the north, along the coast of Peru, the plain is of narrower limits, varying from 10 to 60 miles in breadth. Throughout the whole extent comprised between the 23d parallel and the Gulf of Guayaquil, it consists of a narrow tract of sand intersected by chains of hills which diverge from the great range of the Andes. Numerous rivers of short courses cross this portion of the plain from east to west, and along their banks are oases of luxuriant vegetation; but in all the intermediate places, a fine, yellow drift sand covers alike both hill and dale. These sands are carried and whirled by the winds, and are constantly changing position, like the sand-hills of the African and Arabian deserts. But the transverse hills are a continual check to the onward movement, and serve to protect the banks of the rivers from being overwhelmed by their advance, and the entire plain from becoming a sterile waste. Northward of the Gulf of Guayaquil the plain again becomes wider, and all its remaining portion is a well-watered tract covered with rich vegetation.

21. The Orinoco, Amazon, and La Plata, the three great rivers of South America, traverse the immense basins which severally bear their names. The watersheds separating these, one from the other, are of comparatively slight elevation.

22. The Amazon is the largest river in the world. It rises in the table-land of Pasco, amid the highest part of the Andes in Peru, and after a course of about 4,000 miles falls into the Atlantic at the equator, and is 96 miles wide at its mouth. Its principal tributaries are the Ucayali, Madeira, Tapajos, Xingu, Negro, and Tocantins, varying in length from 1,000 to 1,800 miles. The Amazon itself is navigable for vessels 2,200 miles from the sea.

23. The Orinoco rises from the center of the highlands of Guayana, and assumes at first a westerly course; but turning to the northward and eastward it flows on to the Atlantic, which it reaches in about 9° 15′ north, after a course of 1,300 to 1,400 miles. About 130 miles below its source, it sends off to the southward a branch called the Cassiquiare (200 miles long), which joins the river Negro, a tributary of the Amazon, and thus effects a natural communication between the basins of these two great rivers. The principal tributaries of the Orinoco are the Guaviare, Meta, and Apure on its left bank, and the Ventuari, Caura, and Caroni on the right. The river is generally deep and navigable; but above Ciudad Bolivar, 280 miles from its mouth, it is frequently interrupted by rapids.

24. The Rio de la Plata is a broad fresh-water estuary, formed by the confluence of the rivers Parana and Uruguay. The Parana flows from the mountains of Brazil, and about 760 miles above the sea receives the Paraguay, which waters a more western portion of the great plain. The length of the Parana, from its sources to the sea, is 2,350 miles, and the Paraguay branch alone has a course of 1,260 miles. The Uruguay (800 miles long) unites with the Parana on the left bank of the latter river. Both the Parana and Paraguay are navigable for vessels of considerable burden for nearly 1,000 miles. The navigation of the Uruguay is interrupted by numerous falls above the last 200 miles of its course.

25. There are a number of other rivers in South America which, though not so large as any of those above named, are equal, if not superior, in size to even the largest in Europe. Among these are the Magdalena, flowing north from the Andine valleys to the Caribbean Sea; the Essequibo, Demerara, Berbice, etc., all of which cross the plain of Guayana and flow into the ocean to the eastward of the mouth of the Orinoco; the Maranhao, Paranahiba, San Francisco, etc., which reach the Atlantic to the east and south of the Amazon, and the Colorado and Negro, which empty southward of La Plata. From the western side of the Andes there are no large rivers.

26. South America has few permanent lakes of any magnitude. The most important is Titicaca (about 4,600 square miles), situated on the plateau of that name at an elevation of 12,795 feet, and surrounded by some of the highest summits of the Andes. A river, called the Desaguadero (*outlet*), which leaves its southern extremity, flows into the smaller lake, Aullagas, 500 feet below, the waters of which are salt.

27. Lake Maracaybo, near the Caribbean coast, is connected by a narrow strait with the Gulf of Venezuela, and has brackish waters. The lake Dos Patos, on the southeast coast of Brazil, discharges its waters into the sea by the Rio Grande do Sul, and receives from the south the waters of Lake Mirim. Between Lake Mirim and the sea is the narrow lake Mangueira, connected with the ocean by a narrow channel.

28. Temporary lakes, alternately inundated and dry or in a marshy state, cover when flooded vast tracts of country. The largest of these is Xarayes, at the head of the Paraguay, by which river its surplus waters are carried off. Salt lakes are numerous in the pampas.

29. No part of South America is so hot as its geographical position would indicate—a result due to the trade-winds, the lofty mountains, and other physical causes. The burning heats of Arabia are unknown on the Western Continent. In the steppes of Caracas, the hottest region of South America, the day heat is only 98° Fahr. in the shade, while it rises to 112° in the sandy deserts of the Red Sea. Throughout the whole basin of the Amazon, which comprehends more than a third of the peninsula, the climate is neither very hot nor very unhealthy, though under the equator. This arises from its being shaded by dense forests, and from the prevalence of a cool easterly breeze, a branch of the trade-winds, which ascends the channel, following all its windings, nearly to the foot of the Andes. Brazil and the country extending westward from it enjoys also an equable and temperate climate, and even at Rio Janeiro the mean temperature is only about 74°; at Buenos Ayres the mean annual heat is about 68°, and in the Straits of Magalhaens the temperature of the warmest month does not exceed 43° or 46°, while snow falls almost daily. The narrowness of the continent toward the south, the immense tracts of ocean which lie on either side of it, and its exposure to the rigors of the polar region, sufficiently account for this inclemency. On the west coast, between latitudes 7° and 32°, there is a rainless district, the sea vapors being carried over the land by the heated atmosphere and condensed on the Andes. On the northeast coast of Brazil upward of 200 inches of rain fall annually.

30. The mineralogy of South America is peculiarly rich and splendid. Both gold and silver, but especially the latter, have been supplied from this portion of the continent in great abundance ever since it first became known to Europeans. Gold is found in Brazil, New Granada, Bolivia, Chile, and generally in all the countries along the great chain of the Andes. Silver is chiefly abundant in Peru, Bolivia, and Chile, and in these states is still largely produced, though not in such immense quantities as formerly. The diamond is chiefly found in Brazil; and throughout the peninsula precious stones of various kinds are collected. The more useful metals and minerals are also abundant: copper chiefly in Peru and Chile; lead in Peru and Bolivia; tin chiefly, if not exclusively, in Peru. Iron is universally abounding, and coal of various descriptions is found in Brazil, New Granada, Bolivia, etc. Salt is abundant in many parts of the great interior plains, and rock-salt, gypsum, niter, etc., abound in the low lands of the maritime section west of the Cordilleras.



SILVER MINING TOWN.

31. The most distinguishing features in the vegetation of South America are its prodigious forests, which cover about two thirds of the whole surface. These forests are wholly different from those of the Old World. The trees are much more various, more graceful, and have more distinctive characters; and many of them, even the largest, are adorned with the most brilliant flowers.

32. Throughout the whole of the tropical region, vegetation is on the grandest scale; and in those regions where there are due proportions of heat and moisture, the magnitude of the

SOUTH AMERICA

(PHYSICAL.)

EXPLANATION.

Mountain Chains are represented thus ——
(the broader the line, the greater the elevation.)
The highest points are marked with circles.
Volcanoes are distinguished by a black dot in the centre of the circle; elevation given in feet.
Table lands and Plateaus are colored Brown.
Plains, Valleys and Lowlands, colored Green.

SCALE OF MILES.

0 50 100 200 400 600

TEMPERATURE & CURRENTS.

The mean temperature of the hottest & coldest months (January and July) is shown by Isothermal lines crossing the map thus. July.....40° January——68° the figures showing the temperature of Fahrenheit
The direction of Ocean Currents is shown by Arrows and the figures attached show the velocity of water for each period of 24 hours, in nautical miles.

The names of the chief products of each country are inserted thus, Cotton, Rice. The localities where minerals are found are marked thus, Lead, Copper, Gold.

SECTION AT ABOUT 16° S. FROM THE PACIFIC TO THE ATLANTIC OCEAN

SECTION OF SOUTH AMERICA ON 1° 30' S. FROM THE PACIFIC TO THE ATLANTIC OCEAN.

SECTION ON 34° 30' S. FROM THE PACIFIC TO THE ATLANTIC OCEAN

Entered according to Act of Congress in the Year 1858 by J.H. Colton & Co. in the Clerks Office of the District Court of the United States for the Southern District of New York.

SOUTH AMERICA

1/28.990.200. of Nature.

SCALE OF STATUTE MILES. 69.16. to 1°
0 50 100 200 400 800

400 Geographical or 461.06, Statute Miles, to one inch.

CARIBBEAN SEA
ATLANTIC OCEAN
PACIFIC OCEAN
VENEZUELA
NEW GRANADA
ECUADOR
PERU
BRAZIL
BOLIVIA
PARAGUAY
ARGENTINE REPUBLIC
PATAGONIA
GUIANA
DUTCH GUIANA
BRITISH GUIANA
FRENCH GUIANA
FALKLAND IS.
GALAPAGOS 18. Abingdon I.
EQUATOR
TROPIC OF CAPRICORN
LONGITUDE WEST 60 FROM GREENWICH
LONGITUDE WEST 3 7 FROM 17 WASHINGTON 27 EAST 37 47 57 67 77

PATAGONIA
SCALE OF STATUTE MILES. 0 25 50 100 150
200 Geographical or 230.53. Statute Miles, to 1 inch.

Entered According to Act of Congress in the Year 1858 by J. H. Colton & Co. in the Clerks Office of the District Court of the United States for the Southern District of New York.

trees and splendor of the flowers are extraordinary. Among the characteristic productions of the forest are the mahogany tree, logwood, Brazil-wood, with numerous other hard woods; a vast variety of palms; and the different species of cinchona. Oaks, cypresses, and pines everywhere abound on the sides of the mountains and toward the temperate regions of the more southern latitudes.

33. Fruit-trees also abound, including orange, lime, cocoa-nut, pine-apple, mango, banana, pomegranate, goyaba, etc., and innumerable others; and indigo, coffee, sugar, maize, cocoa, etc., are among the staple products. The cultivation of the tea-tree also succeeds in Brazil, and Paraguay furnishes the "yerba-maté," from which is prepared the universal beverage of one half of the peninsula. Farther south, toward Patagonia, vegetation gradually loses its tropical character, and finally assumes a more and more stunted aspect, until it is lost in the mosses which characterize arctic vegetation.

34. The animals indigenous to South America are inferior to those of the Old World, both in size and other attributes, and less calculated to subserve the purposes of man. Neither the elephant nor camel are found here; nor were either the horse, the ox, the sheep, or the hog known in this portion of the globe, though they now exist abundantly, and immense herds of wild horses and oxen roam over the boundless plains. The only native domesticated animals are the lamas and pacos, both used as beasts of burden.

35. The most formidable beast of prey is the *felis onca* or jaguar. It is larger and stronger than the panther, but inferior in size and ferocity to the Bengal tiger. The puma or American lion is found both in North and South America. In the tropical forests apes and monkeys abound; and among the winged mammals is the vampire, an enormous bat, which attacks the largest animals and even man when asleep. These dangerous creatures are fortunately not numerous, and are almost wholly confined to Guayana, Venezuela, and Brazil. The tapir and peccary range all over the plains; and the sloth, ant-eater, and armadillo among the edentata, and opossums among the marsupials, are natives of this division of the Western World. The last-named family is altogether absent from the Eastern Continent, but is fully developed in Australia.

36. Birds constitute a department of South American zoology which is very numerously and variously developed, and the ornithology of the tropical section exceeds in splendor that of any other region of the globe. Among the principal birds of prey are several species of eagles, vultures, hawks, kites, and owls. The largest of the vultures is the gigantic condor of the Andes, which is confined to the higher peaks of those mountains bordering on the snow-line. This is one of the most powerful and rapacious of birds, and commits great ravages among cattle, deer, and other animals. The American ostrich or emu, which dwells in the plains of the pampas, is also distinguished by its size. The humming-bird, the smallest of its kind, is peculiar to the Western Continent, and has its range southward of the 42d parallel of north latitude. The graceful couroucoui (*trojon pavoninus*), with its splendid robe of green, is a denizen of the tropics.

37. The excessive moisture and dense vegetation of tropical America are peculiarly suited to the development of reptile and insect life. In these regions venomous serpents are exceedingly numerous. The rattlesnake occurs within the parallel of 30° on either side of the equator; and the huge boa-constrictor, the largest of the serpent tribe, and terror even of the natives, dwells in all the marshes and swamps. Huge caymans, iguanas, and other lizards, with numberless alligators and water-snakes, abound in the rivers and temporary lagoons. The electric eel is found in the lakes of Venezuela.

38. Insects are still more numerous than the reptiles; and mosquitoes, chigoes, centipedes, ants of gigantic size, with many others, are the torment of life, both to man and beast. Nothing, however, is more splendid or sparkling than the insect world of South America. The inexhaustible variety of species, the brilliancy of their colors, and the size of their bodies make the beetles, butterflies, and others of their kind, among the most beautiful ornaments of these regions, and the luxuriance of surrounding life causes the greatest delight to the astonished eyes of the naturalist. But to mankind in general the presence of these animals is far otherwise. In Guayana, for instance, the ants migrate in dense squadrons, destroying every thing that falls in their way, and frequently for a time take absolute possession of dwellings, from which they expel every other living creature. The locust is also exceedingly destructive; and sometimes, in the province of Buenos Ayres, the surface for an extent of 200 miles is covered with these devastating invaders. In these destructive visitations, however, we have examples of the boundless wisdom of Providence, since the destructive propensities implanted in the various members of the animal kingdom, by causing one species to prey on another, tend to keep down the numbers of the whole, and so prevent the earth from being entirely over-run by them.

39. From Behring's Straits to Cape Horn the community of the aboriginal races is distinctly apparent. They are almost all of a reddish or copper color, with long, black hair, deep-set black eyes, aquiline nose, and often of handsome slender forms. In South America many are mingled among the civil population, others are half civilized, and others again are still in a state of utter barbarism.

40. The aboriginal population of Chile, known as the Araucanos, are more advanced in civilization than the Indians of the pampas, have fixed residences, and subsist chiefly on the products of their labor. The pampas Indians are ugly, stunt, and ill-made, but muscular and athletic. Since the introduction of the horse, they live almost wholly in the saddle, and lead the roving life of hunters, neither cultivating the ground nor applying themselves to any kind of labor. Of the Brazilian Indians, there are said to have been no less than 200 distinct tribes, and many of these were cannibals and extremely ferocious. Those along the coast are allied to the Caribs. They all paint. South of the Rio Negro we have the huge Patagonian. The stature and bulk of this race, however, though still remarkable, have been exaggerated. Their average height is about six feet, head and features large, hands and feet small, and the features very dark. They lead a nomadic life, and to this day have never been conquered.

41. The Spaniards found in the Andine valleys extensive and well-regulated kingdoms, with defined political and social institutions. The people of these kingdoms inhabited large towns, and the remains of their temples, pyramids, roads, and other public works, with hieroglyphic writings, paintings, and similar objects, still attest the degree of refinement to which they had attained. But these nations, though relatively high in the scale of civilization, as compared with their native brethren in other parts of the New World, were wholly unable to withstand the discipline of their European opponents, and they quickly fell beneath the yoke of a galling conquest; nor has native civilization ever since made the slightest attempt at revival.

42. The present inhabitants of South America consist of Indians, Europeans, and negroes, and of the various intermixtures sprung from these races. The negroes are found chiefly in Brazil, where they constitute more than a half of the population. In all other parts the Indians are most numerous. The Portuguese in Brazil and the Spanish in the various republics are the ruling castes; while along the coasts of Guayana the British, Dutch, and French hold settlements. The great interior is still occupied by savage and semi-civilized tribes, which scarcely own subjection to any state.

43. Though the West Indian archipelago had been discovered in 1492, it was not until the lapse of six years that the mainland of South America was descried. On his third voyage, Columbus, first proceeding southward to the Cape de Verde Islands, and then steering across the Atlantic, came in view of the mountains of Trinidad. Rounding that island into the Gulf of Paria, he saw the mighty stream of the Orinoco rolling into the ocean. Afterward he sailed along the coast as far as Margarita, and thence to Hayti.

44. In 1502 this great navigator undertook a fourth voyage, and in his progress reached the Gulf of Darien. He then returned to Spain, where, neglected and in poverty, he died in 1506. His mortal remains, however, were subsequently brought for burial to the New World, which his daring and enterprise had given to Castile.

45. Meanwhile in another quarter important discoveries were proceeding. Vincent Yanez Pinçon, in crossing the Atlantic from the Cape de Verde Islands, was driven by a tempest southward of the equator; and in January, 1500, came in view of the coast of Brazil, near Cape San Augustin. Thence he coasted northward to the mouth of the Amazon, and justly inferring that so immense a volume of water must have rolled through a vast extent of continent, was the first to give a just estimate of its magnitude. Three months afterward Alvarez Cabral, a Portuguese, came upon a more southern part of the same coast; and from his discoveries Portugal laid claim to the vast country now constituting the Empire of Brazil.

46. These several voyages had been made for a common purpose—the discovery of a western passage to India. Though unsuccessful in this respect, there was still ample unexplored coast to leave room for the anticipated discovery. Even before the fourth voyage of Columbus, Alonzo de Ojeda, on learning the results of the third, set out from Spain (1499), and, following up the career of his predecessor, explored the coast from Margarita to Cape La Vela. He was accompanied as pilot by Amerigo Vespucci, a skillful navigator, who, returning to Europe, published a narrative of the voyage, and claiming to have been the discoverer of the continent, the public adopted the name of "America" for the new land, yielding him an honor undoubtedly due to Columbus.

47. In 1500 Roderigo de Bastidas explored the coast from Cape La Vela to the point reached by Columbus in his fourth voyage; and about the same time large grants of land in these new and fertile regions were made to Ojeda and Nicuesa; but their colonies, conducted rashly and violently, were almost entirely destroyed. A remnant of the now disbanded colonies, however, was assembled at Darien by Vasco Nunez de Balboa, who, penetrating across the isthmus, was the first to discover the Pacific Ocean. This important event bears date



BALBOA DISCOVERS THE PACIFIC OCEAN.

September 25th, 1513. Vast prospects were thus opened; but the discovery remained long without any result. The most tempting accounts were, however, received of the wealth of Peru and of the abundance of the precious metals which existed in that country.

48. In 1531 Pizarro, who had sailed with Ojeda, after one unsuccessful attempt, succeeded in assembling a band of adventurers, with whom he sailed to attack that great country; and by a union of boldness and treachery, he seized at the same time the empire and treasures of the Incas, and Peru became an appanage of the Spanish crown.

49. Almagro, the companion and rival of Pizarro, pushed southward into Chile, but he met there with great difficulties, and was recalled by the state of affairs in Peru. Pedro de Valdivia, however, having had the government of the country conferred upon him, marched to the southern border.

50. Quesada, in 1536–7, made a march from Santa Marta to Peru, through New Granada and Ecuador. In 1540 Gonzalez Pizarro, brother to the conqueror, undertook an expedition through the Andes to the east of Quito, and after numberless hardships came to the banks of the great river Amazon; and Orellana, one of his officers, descended the stream in a light bark, tracing the whole of its immense course down to the ocean.

51. While the above-mentioned events were in progress, discovery proceeded, though in

CHRONOLOGICAL CHART OF SOUTH AMERICAN HISTORY.

Contemporary Chronology.

1500 — Ferdinand and Isabella
4, Philip I.—6, Joan.
6, Columbus died 20 May.
12, John I.
13, Balboa discov. Pacific.
16, Carlos I. (as *Emp.* V.)
1520 — Council of the Indies.
37, The Pope decrees that Indians are human beings.
1540 — 42, Indian slavery abolish. Laws of Carlos for Sp. Am.
55, Philip II.
57, Sebastian.
1560
70, Inquisition in America.
78, Henry.
1580 — 80, Anthony.
80, Portugal annex. to Sp.
98, Philip III.
1600 — Edict of Nantes.
1620 — 21, Philip IV.
1640 — 40, Portugal independent.
40, John IV.
48, Peace of Westphalia.
56, Alphonsus VI.
1660
65, Carlos II.
67, Peace of Breda.
68, Peter II.
68, Peace of Lisbon.
1680
89, Grand alliance.
97, Peace of Ryswick.
1700 — 0, Philip V.
7, John V.
1710
13, Peace of Utrecht.
18, Quadruple alliance.
1720 — 24, Lewis I.
24, Philip V. again.
1730
36, Academicians measure a degree on the equator.
1740
45, Ferdinand VI.
48, Peace of Aix la Chapelle.
1750 — 50, Joseph.
59, Carlos III.
1760
63, Peace of Paris.
1770
74, Free trade bet. Sp. colo.
77, Treaty of S. Ildefonso.
77, Maria, queen.
1780
83, Peace of Versailles.
88, Carlos IV.
89, French Revolution.
1790 — 91, Importation of slaves to Spanish S. Am. prohibited.
95, Franco-Spanish alliance
97, Earthquake.
99, John VI., regent.
1800
2, Peace of Amiens.
1805
6, Berlin, 7, Milan decrees
7, French in Portugal.
8, Treaty of Bayonne.
8, Carlos IV. abd. 19 Mar.
8, Ferdinand VII.
1810 — 8, Joseph Bonaparte.
12, Span. constitution.
14, Treaty of Paris.
14, Ferdinand VII.
Inquis. restor. in Spain
1815 — 15, Treaty of Vienna.
1820 — 20, Revolu. in Portugal
1825
26, Don Pedro—Maria da Gloria.
1830
30, Salic law rep. in Spain.
31, Bolivar *d.* 17 Septem.
32, Don Pedro regent,
33, Isabella II. [and Regency established.
1835 — 34, Portug. regency ended.
1840 — 40, End of Spanish regency
1845
1850 — 50, Cuba invaded from U.S.
1855 — 55, Panama R.R. completed
☞ Railroads have been opened in Brazil, Buenos Ayres, Chile, and Peru, and are in progress in Venezuela. In several states the electric telegraph has been established.
1860
1865

War of the S. Amer. Revolution.

Republic of Ecuador.

Part of the Empire of the Incas, and attached to Peru until 1564.

64, Presidency of Quito.

The history of this period simply exhibits a catalogue of successive presidents.

17, United with Santa Fe.

22, *Presidency* restored.

43, De Condamine voyages from Ecuador to the mouth of the Amazon.

48, Quito destroyed by an earthquake.

31, Ecuador.
31, *Flores.*
34, *Rocafuerte.*
34, Pop. 600,000.
39, *Flores.*
45, *Rocafuerte.*
Flores banished.
49, *Novoa.*
51, Revolution.
52, *Urbina*, Pres.
53, Free navigation proclaimed.
Pop. 670,000.
56, *Robles.*
57, Llamas exported to U. S.

Republic of N. Granada.

1498–1502, Columbus discovers the coast of Tierra Firma.
10, Nicuesa at Madre de Dios.
19, Panama f.
25, Sta Marta f.
33, Cartagena f.
38, Bogota f.
74, Presidency of Santa Fe.
86, Cartagena taken by Drake.
2, Jesuits.
8, Inquisition.
65, Porto Bello and, 71, Panama tak. by Morgan.
95, Cartagena t. by Ducasse and Pointis.
24, Vice-Royalty.
31, *Presidency* restored.
39, Porto-Bello tak. by Vernon.
40, Jesuits restricted.
49, *Vice-Royalty* restored.
58, Quito destroyed by an earthquake.
67, Jesuits expelled.
70, Pop. 806,209.
74, Indigo and cotton cultivat.
83, P. 1,046,641.
85, Great earthquake at Bogota
1, Humboldt in New Granada.
10, Pop. 1,200,000
10, *Vice-Royalty* overthr. 20 July.
United Provin. | *Cundinamarca.* | Narino. | Alvarez | Torres.
16, Slavery abol.
19, Congress
19, Simon Bolivar, President.
29 May, '22.
21, Congr's of Cucuta—1st Constit.
21, Battle of Carabobo.—23, Puerto Cabello taken.
Republic of Colombia.
24, Battle of Barbacoas. Tr. with U. S.
25, P. 594,212——1,258,259——829,000.
26, Earthqu.—Bolivar re-elect.—Tr. with Gt. Brit.
28, *Bolivar* Dictator.
30, 2d Constitution—*J. Mosquera* Pres.
30, *Urdaneta*, Dic.
Cricedа—Obando.
New Granada.
32, 1st Constitu.
32, *Santander.*
34, P. 1,687,109.
37, *Marquez.*
39, *Flores.*
41, *Herran.*
42, Jesuits recal
43, P. 1,932,379.
43, 2d Constitut.
45, *T. C. Mosquera.*
47, Indep. ackn. by Spain.
47, *J. T. Monagas.*
49, Insurrection
49, *Lopez.*
50, Jesuits exp.
51, P. 2,363,054.
51, *J. G. Monagas.*
53, 3d Constitu.
53, *Obando.*
54, Revolution.
54, Herrera.
54, Obaldia.
55, Malarino.
56, 4th Constitution.
57, *Ospino.*
Confederation.
1 2 3 4 5 6 7 8

Republic of Venezuela.

1498–1502, Columbus discovers the coast of Tierra Firma.
2, Ojeda.
23, Granted to Las Casas.
25, Cumana fd.
27, Coro founded
1528–50, Under the Welzers.
67, Caracas, fd.
The government under the audiencia of St. Domingo.
32, Trade in cocoa and hides begins.
50, Captaincy-General of Caracas.
4, Pop. 728,000.
6, Revolt. Miranda from New York.
10, Junta Supr.
11, *Independence* proclaim. 5 July
Constitution.
12, Earthquake, Monteverde.
17, *Bolivar* Dict. of Angostura
19, Congress
19, Simon Bolivar, President.
21, Congr's of Cucuta—1st Constit.
24, Battle of Barbacoas. Tr. with U. S.
29, *Paez*, Dicta.
Venezuela.
30, *Urdaneta*, Dic.
Cricedа—Obando.
New Granada.
32, 1st Constitu.
32, *Santander.*
34, Pop. 945,408.
35, *Vargas.*
Narvarte—Carena
37, *Soublette.*
39, *Paez.*
43, *Soublette.*
44, P. 1,134,439.
47, Indep. ackn. by Spain.
47, *J. T. Monagas.*
49, Insurrection
51, *J. G. Monagas.*
54, P. 1,361,386.
55, *J. T. Monagas.*
57, Constitution.
J. T. Monagas
Pres. for 6 years.
58, Revolution.
Castro, Prov. Pres

Guayana.

1504, *Guayana* discovered by Vasco Nunez.
80, Dutch settle on Pomeroon.
94, Raleigh in Guayana.
1604. French settle in Cayenne. 60, Coligny's Colony.
30, English establish settlements in Berbice.
6, Dutch settle at Essequibo.
46, Dutch settle at Demerara.
63, Cotton cultivated.
69, Sugar-cane from Otaheite.
81, Taken by English, and 83, Restored.
96, Captured by English.
2, Restored.
3, Retaken.
9, Taken by English and Portuguese.
15, Essequibo, Berbice, and Demerara.
15, Surinam.
15, Cayenne and Sinnamari.
63, 12,000 immigrants from France.
63–9, Cotton and sugar-cane introduced.
Pop. 61,950.
Pop. 127,395.
Pop. 22,000. Communicated.

British.
Dutch.
French.

Brazilian Empire.

1500, Pinzon (Sp.) and Cabral (Por.) disc. the coast, and Cabral lands at Porto Seguro.
3, Vespucci discovers Bahia.
30, K. of Portugal divides Brazil into captaincies.
31, De Sousa enters the B. of Nitherohy, and (23 Jan.) harbor of San Vincente, where he founds the first European col.
48, Jews banished from Portugal to Brazil.
Government of San Salvador (Bahia).
49, *De Souza* 1st Gov. General.
55, French settle at Rio de Janeiro, and, 67, are expelled by Portuguese.
72–76, Two governments, S. Salvador—R. de Janeiro
80 82, Misericordia Hospital.
15, Fr. colo. at Maranham. Belem (Para) founded.
24, Dutch invade Bahia.
30, 2d Dutch invasion and conquest.
39, Amazon explored.
46, Dutch defeated and (54) expel. from Pernambuco.
61, Dutch abandon all claims.
66, Archbishopric of Bahia.
79, Portuguese form settlements and, 82, are driven off.
93, Gold mines opened.
97, Settlem. in Minas Geraes.
0, Buenos Ayres contains 16,000 inhabitants.
10, Du Clerc attacks Rio.
11, Rio captured by Groulx and ransomed by inhabitants
13, Northern limits defined.
18, Gold mines of Cuiaba.
29, Diamonds discovered in Cerro Frio.
48, De Condamine descends the Amazon from Quito.
50, Revolt of the Indians.
58–60, Jesuits forcibly expelled from Brazil.
63, Capital transferred from S. Salvador to Rio de Janeiro.
68, Sir J. Banks at Rio.
8, Arrival of royal family and publication of the *Carta Regia.*
8, First printing press at Rio and (11) at San Salvador.
15, Kingdom of Brazil.
John (VI., of Port.) king.
16, Iron made in Brazil.
17, Pop. 3,610,000.
21, Constitution of the Cortes of Portugal proclaimed and adopted at Rio. The king returns (24 April) to Portugal leaving his son, Pedro, regent
22, (7 Sep.) *Decl. of Independence*
22, (12 Oct.) Empire.—*Pedro* I.
23, Pop. 5,130,418.
24, (25 Mar.) *Constitution* sworn to.
25, War with Buenos Ayres.
25, Independence recognized by Portugal.
26, John VI. dies and Pedro I. abdicates in favor of Maria II.
30, Pop. 5,735,502.
31, Abdication of emperor.
31, *Pedro* II.—Regency.
34, *Provincial Assemblies.*
35, Diego Antonio Feyo, Rgt.
37, Pedro Araujo Lima, Rgt.
39, Steamer on north coast.
40, Regency abolished.
41, (18 July) Emperor crowned
44, Treaty with England.
49, Yellow fever at Rio.
50, Slave trade suppressed.
Steam packets to Europe.
53, Steamers on Amazon.
Locomotive on Mauá R.R.
54, Rio lighted with gas.
Pop. 7,060,000.
58, Don Pedro II. R.R. completed to Belem.

Republic of Uruguay.

1512, De Solis discovers the estuary *La Plata.*
30, Cabot explores the Parana, Paraguay, etc.
34, Spaniards settle at Buenos Ayres and Asuncion.
37, Ayolas crosses the Andes into Peru.
42, Vice-Royalty
72, Inquisition established by Philip II.
73, Santa Fe founded.
Salta, Tucuman, and Cordova founded.
80, Buenos Ayres founded.
85, Jesuits in Paraguay.
2, Loyola, Jesuit Provincial.
8, Jesuits found missions in Paraguay, etc.
Under Spain.
30, Earthquake at Lima.
46, Great earthquake; some of the Andes sink.
87, Earthquake at Lima.
92, Jesuits obtain extended privileges.
0, Buenos Ayres contains 16,000 inhabitants.
13, Foreign vessels prohibited the Spanish Pacific ports.
29, Diamonds discovered in Cerro Frio.
42, Biscayan company of merchants obtain monopoly of trade.
45, De Condamine's travels.
48, Post road from Lima to Buenos Ayres.
Population of Jesuit republic in Paraguay 120,000.
58, Truxillo dest. by earthquake.
68, Expulsion of the Jesuits.
72, De Souza transports vessels from the head of the Madeira to the head of the La Plata.
76, Vice-Royalty of Buenos Ayres established.
77, Boundary with Brazil settled.
78, Trade of the La Plata opened to the world.
94, Export of beef and tallow permitted.
Portuguese territory settled.
6, British capture Buenos Ayres (28 July), and evacuate the city (12 Aug.).
7, Elio.
7, Linieres.
8, Cisneros.
9, Velasco.
9, Convention.
10, Continues a province of La Plata until 1821, when it is seized by Brazil.
10, Junta.
11, Congress.
11, B. of Guaqui.
11, Juntas and Consuls.
14, *Francia* Dictator for 3 years.
17, *Francia* Dictator for life.
13, Sovereign Assembly at Tucuman.
14, Proclamation of Ferdinand against the
16, General Congress—*Independence* decl. 9 July.
United Provinces of La Plata.
Puyerredon, Supreme Director.
21, *Rivadavia.*
23, *Provincia Cis-Platina.*
28, Uruguay Independent.
30, *Rivera.*
Pop. 128,312.
35, *Oribe.*
38, *Rivera.*
43, *Suarez.*
Reign of Terror.
Country closed against foreigners.
26, *Unitarian* Constitut.—*Dorrego.*
28, *Lavalle.*
31, Argentine Confederation.
35, *Rosas*, Capt. Gen.
40, Treaty with France.
43, Battle of Costa Braga.
46, French and English blockade.
50, Brazil, etc., at war with B.
52, "Flight of Rosas." [Ayres.
52, *Lopez—Alsina.*
52, Convention of San Nicolas.
40, Consuls.
Vidal, Dictator.
44, *Lopez*, Pres.
49, Yellow fever at Rio.
50, Slave trade suppressed.
52, Rivers Urug
Pop. 160,000.
53, Prov. Gov.
54, *Flores.*
55, *Lamas.*
55, *Bustamente.*
56, *Pereyra.*
52, Independenc' acknowl. by the Argen. Rep. and 53, by Gt. Brit.
55, Pop. 300,000.
58, Tr. w'h Brazil
53, *Obligado.*
55, Pop. 350,000.
57, *Alsina.*
53, *Urquiza.*
55, Pop. 806,000.

Republic of Paraguay.

1524, Pizarro sailing from Panama explores the coast of Peru.
31, Invades the country.
32, Battle of Caxamarca, 10 Nov. and capture of Cuzco.
Of Peru. 33, Lima fd.
45, Mines of Potosi discovered.
62, Quicksilver mines discov.
74, Quicksilver used in refining silver.
86, Earthquake at Lima.
30, Earthquake at Lima.
46, Great earthquake; some of the Andes sink.
87, Earthquake at Lima.
13, Foreign vessels prohibited the Spanish Pacific ports.
42, Biscayan company of merchants obtain monopoly of trade.
46, Lima destr. by earthquake.
48, Post road from Lima to Buenos Ayres.
58, Truxillo dest. by earthquake.
81, Insurrection of Tupec Amaru.
95, P. 1,076,997.
9, Insurrection.
10, Junta.
11, Nat. Cong.
Patriots.
1817, B. of Chacabuco.
21, *Independence* procla. 8 July.
San Martin.
22, *Riva-Aguero.*
23, *Tagle—Bolivar*
25, Council.
26, *Bolivar.*
27, *Lamar.*
29, *Gamarra.*
33, *Orbegoso.*
35, *Salaberry.*
n of Bolivia and
h Peru under
39, *Gamarra.*
39, U. S. explori
41, *Menendez.*
42–4, Vidal. Figuerola. Vivanco.
44, *Menendez.*
45, *Castilla.*
46, Tr. with U.S.
49, *Belzu.*
50, Lima and Callao R. R.
51, *Echenique.*
52, P. 2,115,493.
53, Rivers free to all nations.
55, *Coriloba.*
Pop. 1,613,000.
57, *Linares.*
55, Revolution.
Castilla, Dictator

Republic of Bolivia.

1524, Pizarro sailing from Panama explores the coast of Peru.
31, Invades the country.
32, Battle of Caxamarca, 10 Nov. and capture of Cuzco.
Of Peru. 33, Lima fd.
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11, Nat. Cong.
Patriots.
1817, B. of Chacabuco.
21, *Independence* procla. 8 July.
San Martin.
22, *Riva-Aguero.*
23, *Tagle—Bolivar*
25, Council.
26, *Bolivar.*
27, *Lamar.*
29, *Gamarra.*
24. *Independence* declared 6 August.
25, Constitution.
25, *Sucre.*
Velasco—Blanco.
29, *Santa-Cruz.*
36, Confederation north and south Santa Cruz.
39, *Velasco.*
Bolivian.
49, *Belzu.*
53, Rivers free to all nations.
55, *Coriloba.*
Pop. 1,613,000.
57, *Linares.*

Republic of Peru.

1524, Pizarro sailing from Panama explores the coast of Peru.
31, Invades the country.
32, Battle of Caxamarca, 10 Nov. and capture of Cuzco.
Of Peru. 33, Lima fd.
45, Mines of Potosi discovered.
62, Quicksilver mines discov.
74, Quicksilver used in refining silver.
86, Earthquake at Lima.
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42–4, Vidal. Figuerola. Vivanco.
44, *Menendez.*
45, *Castilla.*
46, Tr. with U.S.
50, Lima and Callao R. R.
51, *Echenique.*
52, P. 2,115,493.
55, Revolution.
Castilla, Dictator
56, *Montt.*
56, Santiago and Valparaiso lighted with gas.

Republic of Chile.

1532, *Chile* invaded by Almagro.
41, Santiago f.
50, Concepcion f.
57, Captaincy-General.
60, Olive plants introduced from Spain.
23, Araucanians independent.
5, Selkirk (Robinson Crusoe) on Juan Fernandez
9, Rescued.
87, O'Higgins Capt. General.
10, *Independence* declared 18 Sep.
Juntas.
14, *De la Lastra.*
Osorio.
Del Pont.
17, San Martin enters Chile.
17, *O'Higgins.*
17, B. of Maypu.
18, Independence reaffirmed, 12th February.
Slavery abolish.
23, Junta—*Freire.*
26, Chiloe evacu.
26, *Encalada.*
Eyzaguirre.
27, *Freire—Pinto.*
29, *Vicuna.*
30, *Tagle—Ovalle.*
31, *Errazuriz.*
Prieto.
33, Constitution
36, *Prieto.*
41, *Bulnes.*
46, *Bulnes.*
51, *Montt.*
55, P. 1,439,120.
56, *Montt.*
56, Santiago and Valparaiso lighted with gas.

Patagonia.

1519, Magalhaens discovers a passage through the Straits bearing his name.
78, Drake in the Straits.
16, Cape Horn discovered
83, Dampier's voyage round Cape Horn
West of the mountains claimed by Chile, and visited by Buenos Ayres.

Falkland Islands.

1592, Discovered by Dr. John Davis.
94, Visited by Hawkins.
1690, Strong discovers Falkland Sound.
1764, *St. Louis* settled by French.
67, *Pt. Egmont* set. by English.
67, St. Louis ceded to Spain.
70, Pt. Egmont taken by Spain.
74, Islands abandoned.
1820, Occupied by Buenos Ayres.
1833 Relinquished to Great Britain.
1840, Colonized by Great Britain.
47, Pop. 270.
52, Pop. 2,600.

a less brilliant train, along the eastern coast. In 1512 Juan Diaz de Solis, a skillful mariner, was dispatched to sail round America, and reach the opposite side of the Isthmus of Darien. De Solis, beginning with Cape San Augustin, the limit of Pinçon's discovery, surveyed the whole coast of Brazil and then came to the grand estuary La Plata. But having incautiously ventured on shore with a small party, he was surprised by the natives and barbarously murdered. The remaining crew, on witnessing this catastrophe, were dismayed, and immediately returned to Spain.

52. In 1519 Fernando Magalhaens, a Portuguese in the service of Spain, proceeded along the eastern coast, and having wintered in the port of San Julian, entered the strait bearing his name (October, 1520), through which he sailed into the Pacific. He stretched directly across that ocean to the Philippine Islands, and was there killed in a contest with the natives; but his vessel had the honor of being the first that circumnavigated the globe.

53. In 1526 Sebastian Cabot was sent out to the La Plata, and ascended the Parana and the Paraguay. In 1535 Juan de Mendoza founded the city of Buenos Ayres, and in 1537 Juan de Ayolas penetrated across the Andes to Peru. Thus was the great outline of South America traced in every direction, and its grand features ascertained generally.

54. The present political divisions of South America consist of one empire, ten republics, and four colonies. The extent and population of each (estimated for 1855) are as follows:

Political Divisions.	Area, sq. m.	Population (1855).	Capitals.
New Granada (*including* Panama)	521,948	2,500,000	Sta Fé de Bogota.
Ecuador	287,638	670,000	Quito.
Venezuela	426,712	1,420,000	Caracas.
Guayana—British	96,315	140,000	Georgetown.
" —Dutch	59,765	70,000	Paramaraibo.
" —French	27,509	30,000	Cayenne.
Brazil	2,973,400	7,060,000	Rio de Janeiro.
Peru	498,726	2,200,000	Lima.
Bolivia	473,298	1,650,000	Chuquisaca.
Chile (*including West Patagonia*)	249,952	1,489,000	Santiago.
Argentine Confederation	659,000	1,100,000	Santa Fé.
Buenos Ayres	127,000	350,000	Buenos Ayres.
Paraguay	72,106	300,000	Asunçion.
Uruguay	73,538	160,000	Montevideo.
Patagonia (*East of Andes, claimed by Ar. Con.*)	210,000	100,000	——
Falkland Islands (*British*)	6,297	3,000	Port Stanley.
Total	6,763,2·4	19,192,000	

—in this population no account is taken of the uncivilized Indians of the plains of the Orinoco, the Amazon, and Plata-Parana.

REPUBLIC OF NEW GRANADA.

1. New Granada occupies the northwest corner of South America, and includes the Isthmus of Panama. It extends between latitudes 12° 30′ north and 3° 40′ south, and longitudes 65° 50′ and 83° 10′ west; and is bounded north by the Caribbean Sea, northeast by Venezuela, east by the Brazilian Empire, south by Ecuador, and west by the Pacific Ocean and Central America.

2. The extreme length of the country, north and south, is about 1,000 miles, and the extreme width, east and west, is about 760 miles. At the Isthmus of Panama in one part the width is less than 30 miles. The area of the whole is computed at 521,948 square miles.

3. The coasts are deeply indented, and present several fine bays and harbors; and in many parts are lined with islands, none of which, however, are of great extent. In the Caribbean Sea are the islands of San Andres and Providençia; in the Chiriqui Lagoon are eleven, and numerous others are found on the coast of Cartagena. In the Gulf of Panama is the Archipelago of Pearls, the island of Tobago, etc., and farther south are many others. The principal indentations are the gulfs of Darien and Panama, both of which have subsidiary bays. Good roads and harbors are numerous, and excellent ports are found on both seas, the most frequented of which are Aspinwall, Cartagena, Rio Hacha, and Santa Marta on the Caribbean Sea, and Panama and Buenaventura on the Pacific.

4. New Granada includes the upper portion of the plain of the Orinoco and a part of that of the Amazon, the more northerly section of the Andes, which are here divided into three nearly parallel ranges, with high paramos or table-lands occupying their summits, and a low country along the Pacific Ocean.

5. A little north of Pasto, on the borders of Ecuador, the Andes separate into two branches: the western, running along the coast, is called la Cordillera de la Costa; and the other, on the east, contains the sources of the Putumayo and Japura, which rivers flow to the Amazon, and farther north from the paramos of Las Papas and Socoboni spring the great rivers Magdalena and Cauca, which flow northward to the Caribbean Sea. Here (1° 50′ north latitude) the eastern Cordillera again divides and forms two chains, between which extends the broad valley of the Magdalena. The easternmost of these chains, stretching along the right bank of the Magdalena to the Sierra Nevada of Merida, is called the Cordillera of Cundinamarca; the central Cordillera separates the valleys of the Magdalena and Cauca, and the western divides the valley of the Cauca from the slope of the Pacific face of the mountains.

6. So long as the middle chain rises to the height of perpetual snow (15,500 feet), the eastern never exceeds an elevation of 13,000 feet; but it rises to the snow limit at the point (5° 5′ north latitude) where the western Nevadas cease, and is collectively the loftiest of the three chains. But to the middle chain belongs the Peak of Tolima (4° 46′ north latitude), 18,320 feet, the loftiest north of the equator. The Sierra Nevada of Santa Marta, not generally considered as a member of the Andes, extends along the sea-coast between the eastern and central chains. It rises abruptly, about 30 miles from the coast, from the level plains which extend between the Gulf of Darien and the Lake of Maracaybo. These mountains all oppose serious restraint on internal communication. The maritime chain, though comparatively low, has but few, and those difficult, passes.

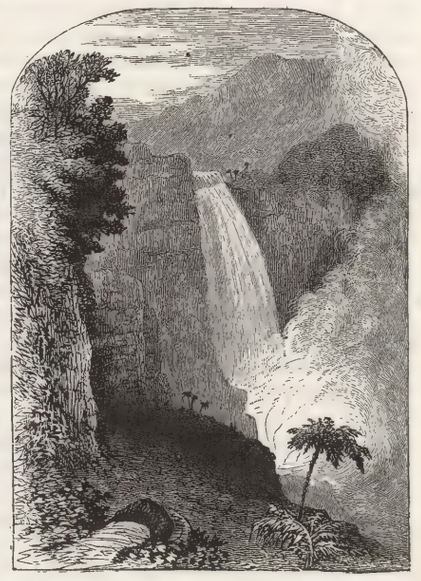
7. Alternating with the mountain chains are plains and valleys, all luxuriant, but varying in character from west to east. The west sea-coast and the isthmus generally are covered with impenetrable forests, and are subject to almost continual rains and a noxious climate. On the east side of the country the plains are alternately swamps and hard and sun-burned deserts. The intervening valleys of the Magdalena and Cauca have a middle character between that of the west coast and the plains, growing continually more equable, humid, and salubrious toward the west and north.

8. The chief rivers of New Granada are the Magdalena and Cauca, which traverse the valleys divided by the central range of the Andes, and pursue a nearly parallel course until they unite near latitude 9° north, and reach the Caribbean Sea through a delta of many mouths in latitude 11° north. The Magdalena, which has a course of nearly 700 miles, is navigable for flat-boats to Honda (latitude 5° 20′ north), and in its lower course is navigated by steamboats. The Cauca, though a great river, descends impetuously, its upper valley being generally 1,500 to 2,000 feet above that of the Magdalena.

9. The numerous rivers which descend from the western Cordillera to the Pacific are unimportant. It may here be stated, however, as a matter of interest, that the San Juan, which flows into the Pacific, rises in the same marshy plain (often inundated) as the Atrato, which falls into the Gulf of Darien. By a short canal, dug in 1788, the communication between the two seas was here made practicable for boats; and it is now proposed to open this water-way for merchant vessels.

10. The eastern Cordillera sends the Guaviare, Vichada, and Meta to the Orinoco; and the Putumayo, Japura, and Negro to the Amazon. On the eastern border of the country the Orinoco is connected by the Cassiquiare with the Negro, and through the latter with the Amazon. Small rivers in this direction are exceedingly numerous.

11. The Funza or Bogota, which flows by the capital, is famed for its cataract at Tequenthama, where it falls at once from the region of oaks, willows, and wheat to that of the palm and sugar-cane. It is supposed that the plain of Bogota, 8,650 feet above the sea, was formerly the bed of a lake, and was drained by the opening of the chasm—the work of an earthquake, perhaps—through which the river now descends. The absolute depth of this celebrated cataract is 479 feet, or three times that of Niagara, and the basin worn out of the rock at the foot of the falls is from 160 to 200 feet deep. Small lakes are numerous throughout the Cordilleras, and these are the sources of numerous rivers. The most remarkable are those of Taletare, Las Papas, etc.; and there are others on the coast.



FALLS OF TEQUENTHAMA.

12. Gneiss, porphyry, and basalt are the primitive rocks discovered in high elevations. From Tuquerres to Bogota are seen rocks of gneiss, micaceous schist, and specimens of talcose slate. At Pasto and Popayan are found masses of porphyry, trap, and basalt, and these are also seen in all volcanic regions. The high table-lands abound in calcareous and carboniferous soils, sandstone being very common, and in those of Tuquerres, Bogota, Tunja, and Pamplona rock-salt abounds. The valleys are covered with alluvions.

13. The whole country is rich in minerals. It contains mines of silver, gold, platina, copper, lead, iron, mercury, and antimony; and ample resources for lime, magnesia, alum, sulphur, fossil coal, bitumen, asphaltum, etc. Fine coal occurs on the plain of Bogota. Platina is found in Choco, but only on the west side of the Cordillera, and gold on both the east and west sides, in Antioquia and in the valley of the Cauca. The chief emerald mines are in the valley of the Funza, near Bogota, in strata of argillaceous schist. These productions, however, have as yet been scarcely touched, and still remain as a source of great wealth to a country even without them, rich and abounding in the gifts of nature.

14. The configuration of the land determines the seasons. In the table-lands and great valleys there are two dry and two rainy seasons: the rainy commencing at the approach of the equinoxes, and the dry at that of the solstices, each continuing about 90 days. In the dry seasons the climate is more healthy, and these are the times of harvest. The eastern basins and the low lands of the north have only one dry and one rainy season, each of six months, the first commencing at the summer and the latter at the winter solstice. In the Isthmus of Panama it is the same, but the approach and termination of each are not so regular. On the Pacific coast rain is almost continuous, and the electric condition of the atmosphere is thus of the greatest activity. These climatic peculiarities, however, are modified by elevation and other causes.

15. The same causes which determine the character of the climate, determine that also of the native vegetation. Trees have their limit at 11,000 feet elevation, and vegetation ceases at 14,000 feet. Above this to the snow-line (15,500 feet) the heights are covered with barren sands. Magnificent palms are seen from the coast to the height of 8,500 feet. Cinchonas of different varieties exist in all parts of the high country; and the forests abound with the gum-elastic tree of several species. In the Andes are also seen willows, bigonias, and encinas, which resemble northern vegetation; while on their declivities grow intertropical fruits, as

bananas, sugar-cane, and zapote, and odoriferous gum and resin trees are abundant. Timber for building and cabinet-work is found in every district. But it is in the eastern basins where vegetation is most developed, and where, in all the luxuriance of the tropics, the scenery is rich in the variety as it is in the grandeur and magnificence of its botanical characteristics.

16. Animal life, in all its savage forms, is redundant. The Magdalena is swarmed by alligators; pumas, jaguars, and other species of the felines, inhabit the forests, and the woods are densely peopled by monkeys. At the height of 3,000 feet, where the boa-constrictor and alligator cease, the tapir, the largest wild animal of the country, makes its appearance. The sloth, armadillo, ant-eater, and cavy inhabit the lowland forests; deer of different species are distributed at all heights, and bears and marmots approach the limits of perpetual snow. The condor soars above the snowy heights; while countless varieties of the feathered tribes animate the woods below. The tropiale (oriolus), the nightingale of these countries, deserves special mention. Turtle and fish abound in the waters; and along the Pacific coasts, especially in the Gulf of Panama, the rarest of pearls have been found.

17. New Granada comprises eight sections, and is divided into 35 provinces, and these into cantons, districts, etc.

Sections and Provinces.		Population, 1851.	Capital Cities.
ISTHMO (27,346 sq. m.):			
Azuero	State of Panama.	34,643	Los Santos.
Chiriqui		17,279	David.
Panama		52,322	Panama.
Veraguas		33,864	Santiago.
CAUCA (29,812 sq. m.):			
Barbacoas		26,519	Barbacoas.
Buenaventura		31,150	Cali.
Cauca		7,748	Buga.
Pasto		27,620	Pasto.
Popayan		71,105	Popayan.
Tuquerres		43,107	Tuquerres.
ANTIÓQUIA (36,623 sq. m.):			
Antióquia		75,053	Antióquia.
Chocó		43,649	Quibdo.
Córdoba		90,841	Rio Negro.
Medellin		77,494	Medellin.
CUNDINAMARCA (92,502 sq. m.):			
Bogota		144,592	Bogota.
Cundinamarca		81,215	Choconta.
Mariquita		86,894	Honda.
Neiva		103,003	Neiva.
Tequenthama		56,126	Tocayma.
Zipaquirá		83,125	Zipaquirá.
BOYACA (54,218 sq. m.):			
Casanare		18,573	Poré.
Tundama		152,753	Santa Rosa.
Tunja		133,463	Tunja.
Vélez		109,421	Vélez.
GUANENTA (25,756 sq. m.):			
Ocaña		23,450	Ocaña.
Pamplona		52,990	Pamplona.
Santander		21,282	San José.
Socorro		157,085	Socorro.
Soto		54,767	Bucaramanga.
MAGDALENA (57,395 sq m.):			
Cartagena		103,783	Cartagena.
Mompox		30,207	Mompox.
Rio Hacha		17,247	Rio Hacha.
Sabanilla		48,167	Sabanilla.
Santa Marta		36,485	Santa Marta.
Upar		14,032	Valle de Upar.
MOCOA (198,296 sq. m.)		3,000	——
Total		2,243,054 = 4.3 to square mile.	
Add uncivilized Indians		120,000	
Grand total		2,363,054 = 4.5 to square mile.	

Of the total population, the whites number 450,003; the aborigines—civilized 301,000, and savage 120,000; the negroes, 80,000; the white-mixed races—quadroons 30,054, and mestizoes 998,997; and the colored-mixed—mulattoes 283,000, and zamboes 100,000. In 1810 the country contained scarcely 1,200,000 inhabitants; in 1825 the census gave 1,258,259; according to the census of 1835 the population was 1,687,109; according to that of 1843 it was 1,932,279, and in 1851 as above, 2,363,054, and is now (1855) probably 2,500,000.

18. Agriculture holds the first place in the industry of New Granada. Rice, cotton, cocoa, sugar, and tropical fruits are among the productions of the coast regions. The elevated plains yield wheat, maize, and the products of temperate climates generally. The cultivation of the soil, however, is carried on very carelessly, and reclaimed land bears but a small proportion to the whole. In the eastern plains, watered by the tributaries of the Orinoco and Amazon, the people are occupied almost wholly with the rearing of horses and cattle; and throughout the country agriculture is in the hands of the converted Indians, who evince a decided predilection for its tranquil labors.

19. Manufactures, properly so called, can be scarcely said to exist. Straw hats, carpets, coarse woolen and cotton stuffs, soap, and some other articles are indeed made in Bogota and the other principal towns; but in no case does native industry satisfy the demand of the country, and hence nearly all manufactured articles are imported.

20. The operations of mining are not systemized, and are carried on to but an insignificant degree. The only silver mine at present worked is that of Santa Ana, near Bogota, and gold is collected only in a few localities, chiefly from river washings, and to the amount of about $3,500,000 per annum. Emeralds, diamonds, and other precious stones, are also among the productions of the country; but, with the exception of the salt mines of Zipaquira, which are extensively worked, mining is left to the poor and ignorant.

21. The commerce of New Granada with foreign countries has materially increased of late years, and in 1855–6 reached the value (imports and exports) of between 15 and 16 million dollars. The exports consist principally of tobacco, cinchona bark, coffee, hides, dye-woods, India-rubber, timber, gold-dust, silver, platina, emeralds, lead, copper, etc., and from Panama pearls and pearl-shells. The value of articles, according to custom-house returns, exported in the year above named was $5,353,350, but this sum does not include gold exported $1,800,000, and silver $200,000, nor yet the exports from Panama, Choco, and Casanare, valued at $276,000. These added make a total of exports amounting to $7,629,350. Imports consist of manufactures generally. The principal trade is with Great Britain, the United States, Germany, and Venezuela, and otherwise with France, the West Indies, etc. The trade of the interior is carried on chiefly by mule-carriage, the roads being exceedingly bad; but improvements have been initiated, and steamers now navigate the Magdalena. The only railroad within the limits of the country is that from Aspinwall to Panama, 49 miles long.

22. New Granada is a republic, with a government based on the constitution of 1832 and subsequent amendments thereto. Every man born in the country, who can read and write, is a citizen, and also foreigners naturalized and 20 years of age. The legislature consists of two chambers: that of deputies, 65 in number, is elected directly by the people, and that of senators, 39 in number, indirectly through provincial colleges. Representation is based on population, but each province is entitled to at least one deputy. In the senate, Bogota, Tundama, Tunja, and Socorro have each two senators, and each other province one senator. The president, in whom the chief executive power is vested, is chosen for four years. He is assisted by a cabinet, composed of the ministers of the departments. The number of voters in the presidential election in 1856 was 201,101, or 1 in 12 of the whole people. Justice is administered by an independent judiciary, consisting of a supreme court and provincial and other inferior courts. Judges are appointed by the president, with the consent of the senate.

23. On the 27th February, 1855, the Isthmus was constituted by the legislature a federal state, under the title of the State of Panama, and has, since that period, chosen its own officers and managed its own internal affairs. The revenue in 1856 amounted to $188,639, and the expenditures to $274,812. Its constitution was promulgated on the 15th October, 1855, by a convention assembled at Panama.

24. All religions are tolerated in the Republic, but only the Roman Catholic Church is supported from the public treasury. The supremacy of the Pope, however, is denied, and the archbishop of Bogota is considered as the head of the hierarchy. The bishops of Cartagena, Mompox, Neiva, Pamplona, Santa Marta, and Popayan are his suffragans, and exercise authority in their particular dioceses.

25. Education, formerly much neglected, is now receiving the earnest attention of both government and people. Public schools on the Lancasterian system are established in all the large towns, and in Bogota a university, while in the provincial capitals colleges or other high schools have been organized. Bogota has also an observatory and several special schools, and in most large places associations have been formed for the advancement of science, art, and literature. Still there is much wanting to complete a general system of education.

26. The periodical press of New Granada in 1855 numbered 48 separate publications, circulating in the aggregate 6,009,600 copies a year. It is the most active, the most extended, and the least expensive of all in South America, enjoys the greatest liberty, and serves at the same time as the organ of the government and as the expression of popular opinion. The papers which have the largest circulation and enjoy the greatest credit are the El Porvenir, El Neo-Granadino, and El Tiempo, published in the capital. The size of the papers is generally small, but their print is neat. Four papers are published in the federal State of Panama—at Aspinwall and Panama.

27. The armed force of the Republic is small. The army proper consists of less than 2,000 men, and the active militia of less than 6,000 of all arms. In war, however, every male adult is liable to serve. The navy is adapted only to coast service.

28. The war of the revolution bequeathed to the state a bankrupt treasury and a heavy debt. The national indebtedness amounted in 1855 to $37,060,888, and this sum is being constantly increased by unsatisfied interest and a deficiency in the annual receipts. The receipts and expenditures for a series of years have been as follows:

1851–2	Revenue,	$1,553,513	Expenditures,	$2,145,779	Deficit,	$592,266
1852–3	"	2,320,383	"	2,960,605	"	640,222
1853–4	"	2,020,481	"	2,845,677	"	825,196
1854–5	"	2,114,459	"	2,865,576	"	751,117
1855–6	"	2,321,756	"	2,324,412	"	2,656

—but according to the estimates for 1856–7, the revenue would exceed the expenditures by nearly $100,000.

29. Bogota, the capital of New Granada, is situated at the bases of the mountains Guadalupe and Monserate, and extends to the plain of the Funza, an affluent of the Magdalena. Latitude 4° 36′ north, and longitude 74° 14′ west—elevation 8,655 feet. From a distance the city, rising amphitheatrically, presents an imposing appearance. The streets are narrow, but regular and well-paved, and have streamlets running through them. The Calle Real is very handsome, terminating at one end in a magnificent square formed by the Palace of the President, the Cathedral, Custom-house, etc. There are other squares of inferior pretensions, though spacious, and all are ornamented with fountains. The houses are generally of two stories, and are strongly built of sun-dried brick, whitewashed and tiled. Ecclesiastical buildings are proportionately numerous, there being 26 churches, a cathedral, 9 monasteries, and 3 nunneries, which together own more than half the whole city. Few of these edifices are externally remarkable, but are gorgeously adorned within. The city also has a university, three colleges, a school of chemistry and mineralogy, the national academy, a public library, an observatory, a botanic garden, and a well-appointed theater. The Observatory is the highest edifice of the kind in the world, and was the first erected in the intertropical zone. The people are mostly creoles, are mild, polite, and cheerful, but wherewithal possessed of little energy. Manufactures are carried on to a small extent, and especially the manufacture of jewelry. Some carpets, coarse textile fabrics, soap, etc., are also made; but the city derives its chief support from its trade with the neighboring provinces. Bogota was founded in 1538, and was erected into an archbishop's see in 1561. It has been successively the capital of the Viceroyalty of New Granada, of the Republic of Colombia, and of the present republic. Population 29,649. Northeast of Bogota, about 30 miles, is Zipaquira (population 6,077), noted for its salt mines. The other towns of the central section of the Republic (*Cundinamarca*) are Choconta (8,460), Ubate (6,754), Tocayma (6,574), La Mesa (2,542), Guaduas (9,049), Honda (3,069), Mariquita (1,737), Ybague (7,152), Neiva (7,719), Purificaçion, Timana, La Plata, Garzon, Guatavita, Ambalema, Guagua, Guamo and Chaparral, Caqueza, etc.



CATHEDRAL OF BOGOTA.

30. In the south, between the Cordillera and the Pacific (*Cauca*), the principal towns are Buga (6,513), Pasto (8,136), Popayan (22,600), Cali (11,848), Tuquerres (6,100), and Cartago (6,744); and those of less importance are Barbacoas (5,249), Yscuande, Caloto, Toro, Almaguer, and Anserma. Popayan ranks the second city in New Granada. It is situated near the Cauca River, and has several fine public edifices, a cathedral, mint, etc. The inhabitants are chiefly mulattoes and negroes. It had formerly a large trade in the precious metals, but its commerce is now principally in rural produce. It was founded in 1536, and was the first city built by Europeans in this region of America. The principal port of this section is Buena Ventura (1,956), at the head of the Bay of Choco.

31. Northward of the Isthmus and Gulf of Darien, and west of the Magdalena (*Antioquia*), are the cities of Medellin (13,755), Antioquia (8,637), and Rio Negro (3,099), and the towns of Marinilla, Santa Rosa, Quibdo, Novita, etc. The two last are built of wood and palm leaves, and appear more like aboriginal settlements than towns of civilization. Medellin is situated on the Poré, an affluent of the Cauca, and is the entrepôt of the commerce of a considerable extent of country.

32. In the section *Boyaca*, northeast toward Venezuela, are the towns of Tunja (5,122), Leiva (3,305), Velez (11,178), Moniquira (9,127), Santa Rosa (4,996), Poré (906), etc. Northward toward Venezuela (*Guanenta*) are Pamplona (9,095), Socorro (15,015), San José (5,741), Bucaramanga (10,018), Rosario (3,108), Ocana (5,046), etc.

33. On the coast region, and fronting on the Caribbean Sea (*Magdalena*), the principal cities are Cartagena, a fortified place (9,896), and Santa Marta (4,340), and Mompox (7,336). The first two are important ports, and Cartagena is the great depôt of the commerce of the northern part of the Republic. After these may be named Rio Hacha (2,974), Cienaga, Baranquilla, Sabanilla, Soledad, Sabanalarga, etc. The waters of the Bay of Cartagena are connected with those of the Magdalena by a canal.

34. The cities of the Isthmus are Panama (6,566), Porto Bello (1,185), Aspinwall (2,000), Chagres (1,340), Los Santos (2,004), David (2,800), etc. Panama and Aspinwall are connected by railroad, and are the principal depôts of interoceanic commerce. The old route was between Panama and Chagres, the San Juan being navigable from the latter to Cruces, and thence to Panama the journey was made by mule-carriage. Porto Bello was anciently the most noted Atlantic port, and was strongly fortified, as was also Panama, on the opposite side of the Isthmus. Aspinwall is a new town, built on Navy Bay.

35. New Granada was discovered by Columbus in his third and fourth voyages, 1498–1502. Different forms of government having been established throughout the territory, a viceroyalty was at length, in 1724, formed of what are now the republics of New Granada and Ecuador. This lasted until 1810, when the Spanish authority was thrown off, and a constant war against that power was maintained until 1824, when the royal army was finally vanquished.

36. Bolivar, the most distinguished leader of the Spanish South American revolution, in 1818 proposed the union of Venezuela and New Granada, and when the congress of Angostura met, early in 1819, the fundamental law was enacted which established the Republic of Colombia, and which was inaugurated on the 17th December of the same year. This union existed only ten years, and was never cordial. On the 24th November, 1829, Venezuela seceded from it, and in 1831 Ecuador also withdrew. The central part of Colombia instituted itself the Republic of New Granada on the 22d November, 1831.

37. In 1832 (1st March) the constitution was promulgated and the Republic divided into 18 (now 35) provinces. Under this constitution New Granada became an integral state. The provinces secured to themselves municipal functions, having powers over all local legislation. In 1843 (30th April) the constitution was reformed, but without any variation in the organization of the government. Slavery was entirely abolished by law on January 1st, 1852; no slave has been born in the Republic since 1821. On the 21st May, 1853, a third constitution was published.

38. In 1855 the Isthmus of Panama was constituted a federal state, subject to the national government, however, in certain specified affairs. In 1856 this portion of the Republic became the scene of great riot, in which a number of American emigrants to California were massacred by the natives. On this account it is probable that the United States government will eventually seize the Isthmus and hold it under the style of a protectorate.

39. In May, 1856, the legislature passed an act to constitute the Republic a confederacy of eight states; and also one to authorize the re-establishment of the Republic of Colombia.

[*Weights, Measures, and Moneys.*—The legal standards (adopted 1853) are those of the French metrical system. The following are the units, which, for subdivisions and multiples, are treated decimally:

Measures.—*Length:* metro = 1.09363 yard; *superficial:* metro cuadrada = 1.19603 square yard; *agrarian:* ara = 119.60393 square yards; *cubic:* esterio = 1.30802 cubic yard; *dry capacity:* litro = 0.02137 bushel; *liquid capacity:* litro = 0.26419 gallon.

Weights.—Gramo = 15.43400 grains—1,000 gramos = 1 quilogramo = 2.20485 lbs. avoird. or 2.67951 lbs. troy.

Moneys.—Peso or $ = 5 francs. Formerly the denominations and values of moneys were the same as in Spain.

☞ The old Granadian denominations are still in general use. Among these the most important are—the vara = 2.62 feet; legua = 3.11 miles; vara cuadrada = 6.89 square feet; fanegada = 1.58 acre; vara cubica = 18.08 cubic feet; fanega = 6.13 bushels; cahiz = 73.53 bushels; cantara = 2.11 gallons; moyo = 16.91 gallons; libra = 1.10 lb. avoird.; arroba = 27.56 lbs.; quintal = 110.24 lbs.]

REPUBLIC OF ECUADOR.

1. Ecuador lies between latitudes 1° 40′ north and 5° 50′ south, and longitudes 68° 20′ and 81° 12′ west; and is bounded on the north by New Granada, on the east by Brazil, on the south by Peru, and on the west by the Pacific Ocean.

2. It has a cuneiform shape, and appears on the map as a wedge driven into the continent between New Granada and Peru, having its widest part on the Pacific, along which its coast extends from the Rio Tumbez northward to the Rio Patia, about 430 miles. Its greatest length, east and west, is on the latitude of Guayaquil, where it measures about 800 miles. The area may be estimated at 287,638 square miles.

3. Ecuador contains almost the whole of the equatorial Andes, and the hilly country between them and the Pacific. The great eastern plain is chiefly drained by the Putumayo and other tributaries of the Maranon. The Andes enter the country between the Bay of Guayaquil and San Jaen de Bracamoros, and thence run in a northern and northeastern direction to the Granadian frontier. This chain forms in the southern and northern extremities two large knots—that of Loja, between 5° 30′ and 3° 15′ south, and that of Los Pastos, between 0° 20′ and 1° 13′ north, the first occupying 11,650 and the latter 8,700 square miles.

4. Between these two mountain-knots the Andes form an enormous mass of rocks, covering in width an extent of 70 or 80 miles. Both declivities are rather steep, but especially that toward the eastern plains, and on both edges are lofty ranges running parallel to one another. Between them extends a longitudinal valley, which measures from 15 to 20 miles across, and in length nearly 300 miles. At two points transverse ridges unite the two ranges, and thus the great valley is divided into three smaller valleys.

5. The most southerly of these, the valley of Cuença, extends from 3° 15′ to 2° 27′ south, with a mean elevation above the sea of 7,800 feet. Its waters join the Rio de San Jago, a tributary of the Maranon. The summits of the ranges which surround it rise only to about 10,000 feet, and nowhere attain the snow-line, except the range of Assuay (2° 29′ south), which separates the valley of Cuença from that of Alausi and Ambato, the great road over which rises, near the Ladera de Cadlud, to 15,520 feet.

6. To the north of this transverse ridge extends the valley of Alausi and Ambato, to 0° 46′ south. Its surface is about 8,000 feet above the sea; and its waters run off to the Marona and Pastozo, two tributaries of the Maranon. On the range east of this valley are the volcanoes of Sangay 16,827, Tunguragua 15,960, and Carguairazo 16,663 feet. A short distance south of Carguairazo is the lofty Chimborazo, the highest summit of the western equatorial Andes, being 21,424 feet above the sea.



CHIMBORAZO.

7. The transverse ridge which separates this valley from that of Quito is called the Alto de Chisinche. It is only about 500 feet above the plains and of inconsiderable width. At its western extremity stands the volcano of Cotopaxi, 18,875 feet, and at its eastern the Ylniza, which rises to 17,376 feet. This Alto de Chisinche forms the watershed between the Pacific and Atlantic seas.

8. The valley of Quito extends to the mountain-knot of Los Pastos, and has a mean elevation above the sea of 9,600 feet. Its waters run off by the Rio Pita, which joins the Rio de las Esmeraldas, and thus flow into the Pacific. On the range standing east of this valley are the volcano of Antisana, 19,370 feet high, and the Cayambe Urcu, on the equator, 19,534 feet. On the western range are the volcano de Pichincha, 15,936 feet high, and the Cotocache, which rises to 16,448 feet. On the mountain-knot of Los Pastos are several volcanoes, as those of Cumbal 16,824 feet, and Chiles and Pasto, each 17,340 feet; the last, which gives its name to the whole group, is, however, just beyond the northern limits of Ecuador. The elevated plains, which are inhabited on that mountain region, are 10,240 feet above the sea.

9. The country between the Andes and the Pacific is filled up with mountains of various elevation, which toward the shores sink down to hills. The shores themselves are high, but not of great height, except at a few places, as at Cape San Lorenzo. The country along the Rio de Guayaquil forms an exception. Here a plain extends several miles in width, and is so low that a part of it is covered by the inundations of the river in the rainy season, and part has been changed into a swamp.

10. The plain of the upper Maranon, east of the Andes, is partly wooded and partly savannah. The northeastern portion is said to be occupied by a part of the low mountain range called by Humboldt the Sierra Tunuhy. Numerous lakes and stagnant pools occur, and in the rainy season a large portion of the low lands becomes inundated.

11. The principal river of Ecuador is the Amazon, which is here called the Maranon and sometimes the Tunguragua. Where it leaves Peru and begins to form the boundary line between the two republics commences the series of cataracts and rapids with which it issues from the Andes. Between Santiago de las Montanas and Borga is the rapid of Manseriche, where the river is narrowed to about 150 feet, and for about seven miles rushes down with incredible velocity. Below this the Amazon becomes navigable. Its principal Ecuadorian tributaries are the Marona, Pastozo, Piquena, and Napo, which descend from the eastern declivities of the Andes. The Putumayo and the Yapura, which come from the same range and in the same direction, fall into the Amazon within Brazil.

12. The rivers which have their origin in the western slope are numerous, but have a comparatively short course and are of little importance. The most remarkable are the Patia, Esmeraldas, Santiago, Mira, and Guayaquil. These are all navigable by boats, but only the Guayaquil admits of ship navigation. This river, the principal in western Ecuador, is formed by the union of numerous streams from the Andes, and becomes navigable for commercial purposes at Babayhoyo or Caracol, 70 or 80 miles from its mouth, river boats ascending to one or other of these places according to the season; ships of considerable burden can ascend at full tide up to the capital. Here the river has been swelled by the junction of its principal affluents, the Dauli and the Babo, and has increased to a great size. Opposite to the city it is two miles wide, and continues to expand largely to its mouth. Below Guayaquil the channel is impeded by numerous rocks and small islands, and at its mouth is the larger island of Puna. Where the river falls into the Pacific it is known as the Gulf of Guayaquil, the extreme points of which are 70 miles apart. The whole coast is bold, and in many parts the lower spurs of the Andes come down to the water's edge, forming headlands inclosing numerous bays; and in some parts it is beset with small islands and rocks. With the exception of that of Guayaquil, however, it has no available harbors, and here all the maritime commerce of the Republic is concentrated.

13. The Andes of Ecuador may be entitled collectively a volcanic group, but as yet little has been done toward a minute examination of their structure. Chimborazo is known to be a mass of trachyte, and the ridge of Assuay displays the same formation; and lavas, pumice, and cinders cover extensive tracts in the neighborhood of Cotopaxi and Sangay. Yet the

sienite rocks and porphyries elsewhere so characteristic of the Andes occur here also; and on the heights of Cuença the causeways and ruined temples of the Incas are constructed of freestone.

14. It was said that gold was formerly collected in several river beds in the valley of Ambato and south toward Zaruma; and silver ores are believed to exist in various parts of the Cordillera. Sulphuret of mercury is found in Cuença, and platina in Barbacoas; but no attention is now given to the mines, except those of iron and copper. Emeralds, however, are still gathered on the side of the Rio de Esmeraldas, chiefly by the Indians; and in other parts sulphur is prepared in considerable quantities. Salt is obtained from sea-water along the coast.

15. The temperature of course differs considerably in the elevated valleys which are surrounded by the high peaks of the Andes, and in the low country on both sides of the range. In the valley of Quito the seasons are scarcely distinguishable, the mean temperature of the day all the year round being between 60° and 67°, and that of the night between 48° and 52° Fahr. The winter is only distinguishable by a somewhat greater quantity of rain, and the summer by a larger number of fine days. Thunder-storms, chiefly occurring in the afternoon, are of almost daily occurrence. These valleys are also subject to frequent earthquakes, some of which have been very destructive. At Guayaquil and on the other valleys along the coast the mean temperature of the year varies from 78° to 82°, and from December to April the heat rises to 95°, during which months the rains are almost constant, and violent tempests occur. On the great eastern plain the climate is as hot as on the coast region, but is greatly modified by the daily recurrence of strong breezes from the east. Near the base of the Andes rain falls nearly every day, and generally after noon, when the wind commences to blow.

16. Near the snow-line, which in this part of the Andes occurs at the height of 15,750 feet, the vegetation of the paramos (summit flats, 11,000 to 14,000 feet above the sea) is extremely scanty, consisting of only two or three species. Districts like the plains in the mountain-knot of Pastos, about 10,000 feet high, are covered with grass and afford good sheep-walks. The culture of cereals and fruits of temperate latitudes prevails between 10,000 and 4,000 feet, especially in the great valley of the Andes. Below 4,000 feet the vegetation is tropical. The wide valley of Guayaquil, consisting of alluvial soil, is very fertile, and there are few spots even between the tropics equaling it in richness and vigor of vegetation. It is covered with groves of every kind of intertropical fruit. Among the forest trees is that which gives the cinchona bark. This tree is most frequent on the heights of the mountain-knot of Loja, where it grows on the eastern declivities at an elevation of 6,000 or 8,000 feet.

17. The puna or American lion, and the still more formidable jaguar or American tiger, together with the black bear, frequent the mountains near Quito, and descend even to the sea-shore. The tapir (of two species) is one of the largest of the wild quadrupeds; and deer are numerous, but generally of small size. The sloth, bats of which one species, the vampire, is destructive to cattle), cavies, and iguanas; monkeys, of many species, people the interminable forests. The feathered tribes, reptiles, and insects are too numerous for specific mention. On the sea-coast, life is rendered miserable by the incessant stings of flies and insects; snakes lie coiled under the fallen leaves, and the banks of the streams are guarded by alligators. Fish of many kinds are inconceivably abundant along the shore, and feed myriads of birds; and the condor, among the rest, is said to visit the beach twice a day from his home on the highest Andes—on an average 100 miles distant—to feast on the shell-fish washed ashore by the tide. The forests are vocal with tropical birds, and many of these, as also the insects, are of resplendent beauty.



THE CONDOR

18. Ecuador is divided into three departments, and these into provinces:

Departments.	Provinces.	Area, sq. m.	Population.	Chief Towns.
Ecuador	Pichincha	122,474	337,000	Quito.
	Chimborazo			Riobamba.
	Imbambura			Ibarra.
Guayaquil	Guayaquil	26,238	132,000	*Guayaquil.*
	Manabi			Puerto Viejo.
Assuay	Cuença	138,926	196,000	*Cuença.*
	Loja			Loja.
	Jaen de Bracamoros			San Jaen de Bracamoros.
Total		287,638	665,000	

19. The population is composed of the descendants of Spaniards and of the aborigines: the latter constitute about three fourths of the whole. Along the coast there are also a few negroes, zamboes, mulattoes, etc. Those Indians who inhabit the elevated valleys belong to the race of Peru, and speak the Quichua language. They are mostly agriculturists, and also make stuffs of wool and cotton. The Indians of the eastern plain are much lower in civilization, and apply themselves almost exclusively to fishing and hunting. At least four fifths of the whole people dwell in the Andine valleys; and in the same regions are found numerous antiquities referable to the ancient Peruvian races.

20. The Ecuadorians are essentially an agricultural people. The cereals are almost solely grown in the high valleys; and in the equable climate of Quito wheat can ripen at any time of the year. In the same region sugar-cane, cotton, and tobacco are grown extensively. Cocoa is the chief product of the lower coast region, where also rice and pepper are cultivated. Sheep and cattle are reared in great numbers, the former especially, on the higher declivities; and horses, asses, and mules are sufficiently numerous to be articles of export. In some districts in the coast region considerable quantities of wax are collected, and still higher up are some spots where the cochineal insect is reared. The forests at the present day yield little to industry or commerce.

21. Formerly the manufactures of Ecuador were more considerable than those of any other country of South America; but these, and also mining, have of late years been largely abandoned; the former on account of the preference given to foreign goods. The Indians, however, weave cotton cloth, make quilts and carpets, and also pottery; they are, indeed, the miners, the agriculturists, the herdsmen, and, to a great extent, the manufacturers of the Republic. Lace of a good quality is made in Quito, and also various other articles of home consumption; but there are no important branches of manufactures carried on.

22. Commerce is almost wholly centered in Guayaquil, the only port open to foreign shipping. The exports consist of the raw produce of the country, and vary very greatly in quantity in different years. Cocoa is the great staple, and for the ten years ending with 1855 was exported to the following amounts:

1846	11,202,008 lbs.	1851	9,567,068 lbs.
1847	12,673,613 "	1852	13,965,548 "
1848	12,007,395 "	1853	13,243,024 "
1849	14,284,734 "	1854	10,992,141 "
1850	11,066,056 "	1855	15,089,753 "

—in the last named year there were also exported the articles named below:

Straw hats	38,778 dozen.	Tamarinds	699 quintals.	Timber	9,368 logs.
Tanned hides	26,246 sides.	Coffee	766 "	Canes	73,551 number.
Tobacco	3,659 quintals.	Orchilla	4,000 "	Mangles (?)	5,660 (?)
Sarsaparilla	657 "	Cinchona bark	7,749 "	India rubber	765 quintals.

In 1855 the value of domestic produce exported was $1,872,843, and of gold and silver $246,805—total $2,119,648. The importation of foreign goods amounted in value to $1,914,645. The trade is chiefly with Mexico, Guatemala, Peru, and the United States in America, and England, Spain, France, and Hamburg in Europe.

23. Formerly European commodities were imported into Ecuador by the great road through the high valleys from Peru and New Granada, but nearly the whole country now receives them from Guayaquil. Internal trade is greatly impeded by the physical character of the country and the want of good roads. Mules are the general beasts of burden. Fishing is carried on to some extent on the coast, and a good deal of salt fish is prepared. Along the coast a murex is found, which yields a juice used in dyeing purple. The pearl fishery, once a profitable employment, has been abandoned.

24. Ecuador is a republic. The legislature consists of only one chamber. This is composed of 45 members, elected by the people through colleges. The chief executive is styled president, and is elected for eight years. He is assisted by a council of state, of which the vice-president of the Republic is president. The political government of the departments is vested in *intendantes* appointed by the president, and whose authority extends over the administration of justice, police, finance, and defense. The civil and criminal codes are a digest of the laws of Castile and of the Indies, royal ordinances, etc. The national revenue for the year ending 30th September, 1854, amounted to $1,310,583, and the expenditures to $1,278,319. At the same period the public debt amounted to $19,085,000.

25. Under the new regimé, men of all races and complexions are politically equal; and religious liberty, freedom of the press, and the principle of election to office are now established by law. The inhabitants are without exception Roman Catholics. The church is presided over by the archbishop of Quito and the bishops of Guayaquil and Cuença. Education is advancing; and besides the common schools there are several colleges, and at Cuença and Quito are universities. The public press is of little importance, and consists of only three publications, with an annual circulation of only 161,000 copies. These are "El Seis de Marzo," the official organ of the government in Quito, and "La Democracia" and "El Progreso," semi-official papers published in Guayaquil. All are also of a commercial character.

26. Quito, the capital of the Republic and of the department of Ecuador, is situate in a ravine east of the volcano Pichincha. Latitude 0° 13′ 27″ south, and longitude 78° 50′ west—elevation 9,543 feet. It is a well-built city of 70,000 inhabitants, and has several handsome squares, in one of which are the Cathedral, Town Hall, palaces of the archbishop and president, and a fine bronze fountain. The ex-Jesuits' college contains a public library and halls now appropriated to the university. Other principal structures are the churches and convents, and several hospitals. Quito has manufactures of coarse cotton and woolen goods, lace, hosiery, jewelry, and confectionery, and a large trade in corn and agricultural produce. Eleven snow-capped mountains are in view from the city, and about ten miles northwestward is a plain chosen in 1736 by the French and Spanish astronomers for measuring a degree of the meridian. Ibarra (pop. 13,000) is a well-built town at the foot of the volcano Imbambura, and has manufactures of wool and cotton. Not far from it is Otavalo, a town of 20,000 inhabitants. On the coast, in this department, are the harbors of Esmeraldas, Atacamas, and Carondelet. South of Quito is Tacunga or Lactacunga, which, between 1698 and 1797, was four times destroyed by earthquakes; it stands at the foot of the eastern ridge of the Andes, 9,254 feet above the sea, and contains 5,000 inhabitants. Riobamba was entirely destroyed in 1797. The new town (pop. 16,000) is built five miles farther south; and in its neighborhood, at Tescan, great quantities of sulphur are prepared. Ambato, northeast of Chimborazo (pop. 10,000), and Guaranda, south of the same mountain, have some commerce, owing to their situation on the road between Guayaquil and Quito.

27. Cuença (pop. 22,000) is capital of Assuay. It is a meanly built town, 8,640 feet above the sea; but has a university, and a trade in cheese, etc. Loja (pop. 12,000) is situated in a valley 6,768 feet high, and is noted for its trade in cinchona bark. Zaruma, on the western declivity of the Andes, is the chief town of the gold and silver mining district, and contains about 6,000 inhabitants. Tumbez is a port on the Gulf of Guayaquil, and is noted as the place whence Pizarro made his descent on the Peruvian coast. In its neighborhood are some mines. San Jaen de Bracamoros, near the left bank of the Maranon, has 3,000 inhabitants. Borga is a small town, near which the rapids of Manseriche terminate.

28. Guayaquil, the capital of the department of the same name, and the chief commercial town (pop. 28,000) is situate on the right bank of the river Guayaquil, here about two miles wide. Latitude 2° 12′ south, and longitude 79° 39′ west. Vessels of considerable burden can come up to this place, as the tide at full and change rises 24 feet. The town itself is divided into the old and new. The old town, which is higher up the river, is entirely inhabited by the poorer classes. Both are very unhealthy, and occupy low, level sites, which have no drainage. The whole town extends about two miles along the river. The buildings are generally only one story high and of wood. The principal public building is the Cathedral.

SOUTH AMERICA

(EASTERN SHEET.)

1/14,495,100 of Nature

SCALE OF STATUTE MILES.

0 50 100 200 300

200 Geographical or 230.53 Statute Miles, to one inch.

Capitals ..... ✻ ASUNCION

Capitals of Provinces ..... ◉ NITHEROY

Entered according to Act of Congress in the Year 1858 by J. H. Colton & Co. in the Clerks Office of the District Court of the United States for the Southern District of New York.

The commerce of the city is of importance—foreign goods are imported in considerable quantities, and sent up the river in balzas to Babayhoyo and Caracol, whence they are carried on the backs of mules to the valleys of Ambato and Quito; and almost the whole native products are exported from this port. Some ships are also built here. Guayaquil is subject to the visitations of terrific earthquakes. Chimborazo, as well as Cotopaxi, is visible from the town in clear weather. Babayhoyo and Caracol are situated at the points where the river Guayaquil ceases to be navigable at different seasons, and consequently on that account are used as commercial depôts. Puerto Viejo is a small place of 4,000 inhabitants, and has its harbor at Manta. Another harbor is at Punta de Santa Elena.



GUAYAQUIL CATHEDRAL.

29. When the Spaniards under Pizarro first visited Peru, this portion of the country was under the sway of the Incas; and even at the present time, especially in the valley of Quito, many interesting monuments of the greatness and splendor of the aborigines, as well as traces of their civilization and refinement, remain to attest the truth of history.

30. From the time of the Spanish conquest to the year 1564 Quito formed a part of the Viceroyalty of Peru. In that year it was erected into a separate presidency, and so remained until 1717, when it was annexed to New Granada. This connection, however, only lasted five years, when it again returned to its separate condition.

31. The revolution which broke out in 1809 soon extended to Quito, but was several times suppressed, and it was not until 1821 that the royalists were finally vanquished in this part of Spanish America, which then united with New Granada and Venezuela to form the Republic of Colombia.

32. Continual troubles and revolts harassed the new State, till at last in 1831, the three ill-united countries, or rather two (for Venezuela had seceded from the union in 1829), agreed to separate, dividing equitably among them the Colombian debt. On this occasion Quito with its associated provinces took the name of Ecuador. Since this event internal revolution has frequently convulsed the Republic; but it has nevertheless continued to progress in civilization, and in the main elements of substantial greatness.

33. The Galapagos Islands, which belong to Ecuador and are politically attached to Guayaquil, are a group in the Pacific Ocean, about 600 miles from the Ecuadorian coast. There are thirteen islands altogether, seven small and six of considerable size, lying between latitude 1° 30′ south and 1° 4′ north, and longitude 89° 20′ and 92° 10′ west. The largest, Albemarle Island, situate on the equator, is 60 miles in length and about 15 miles broad—its highest summit 4,700 feet above the sea. The others of the large islands are—Narborough, on which is an active volcano 3,720 feet high, James Island, Indefatigable Island, Chatham Island, and Charles Island.

34. These islands are all of volcanic origin, and of comparatively recent formation. Their appearance is exceedingly uninviting; but on penetrating into the interior of Charles Island an extensive and fertile plain is met with, which is cultivated by Ecuadorian convicts, and produces luxuriant crops of bananas, sugar-cane, Indian corn, sweet potatoes, and other tropical vegetation. There are also goats and hogs on the island. The first convicts were sent to the island in 1832.

35. Crabs, iguanas, a large kind of lizard, and great elephant tortoises abound, the two latter being peculiar to the Galapagos, which is the Spanish name for land tortoises. These animals grow here to an immense size, weighing frequently several hundred pounds, and are altogether extremely ugly; when large, their feet are like those of a small elephant, whence their name. Small birds are numerous and remarkably tame. Large deposits of guano are said to have been discovered on this group.

[*Weights, Measures, and Moneys.*—These are based on the Spanish system, and are generally of the same values, with local variations. The French metrical system is also in use.]

REPUBLIC OF VENEZUELA.

1. Venezuela is situated between latitudes 1° 12′ and 12° 16′ north, and longitudes 59° 42′ and 73° 17′ west; and is bounded on the north by the Caribbean Sea and the Atlantic Ocean, on the east by the Atlantic Ocean and British Guayana, on the south by Brazil, and on the southwest and west by New Granada.

2. It lies east and west along the coasts of the Caribbean Sea, and has an average length of 860 miles. Its breadth varies from 400 to 640 miles, with a medium width of 500 miles. Area 427,842 square miles. The island of Margarita, off the coast, and a number of smaller islands belong to the Republic.

3. Venezuela is a vast, varied, fertile, and splendid region. Magnificent rivers, mountains clothed with dense forests, plains of almost boundless extent, and a vegetation vigorous and abundant constitute its most remarkable features. The eastern Cordillera of the Andes divides into two branches before it leaves New Granada. The west branch, which incloses the Lake Maracaybo, has but a moderate elevation, rarely exceeding 4,000 feet, and is everywhere covered with dense forests. The east branch enters Venezuela much farther south, and stretching northeast for about 300 miles, its general breadth being 60 miles, imposes on an extensive area comparative sterility. It is an immense pile of rocks, forming ridges narrow at the summit, and rising to the limits of Alpine vegetation. The paramos or summit plains have generally an elevation of 12,000 feet, and the Sierra-Nevada-de-Merida, the loftiest of the summits which rise above them, and 15,300 feet in height, is always covered with snow.

4. Breaking off from these mountains near Trujillo, the coast chain runs northeast toward the Gulf of Valencia, which, inclosed by mountains, presents the most diversified and beautiful scenery; and thence the chain continues onward parallel to the sea-coast. Its north branch, known as the Sierra-del-Mariara, terminates at Cape Codera, rising in the Silla-de-Caracas to the elevation of 8,600 feet. The south branch, known as the mountains of Guacimo and Yusma, sends a winding chain, the Sierra-de-Alta-Gracia, south to the Orinoco, while toward the east and southeast it forms the chains of the Bergantin and Cocollar.

5. The valleys and table-lands of these coast chains, which have collectively a moderate elevation, are the chief seats of cultivation, and form together the most populous region of the torrid zone in the New World. In the southern part of the Republic, on the frontiers of Brazil, and midway between the Orinoco and Amazon, rises an insulated group of mountains divisible into several chains, extending for the most part east and west, and called the mountains of Parima. This extensive mountain region still remains unexplored, a wilderness overgrown with superb forests. It is known, however, that the mountains of Parima nowhere attain the elevation of paramos (12,000 feet), so that their summits, when cleared of trees, would be capable of cultivation.

6. From the mountains of Parima to the coast chain, and from the mouths of the Orinoco to the foot of the Andes, extends an immense plain, with an area of perhaps 300,000 square miles, and having in some places on its margin an elevation of 1,300 feet, though a great portion of it is little above the sea-level, and in the rainy season is flooded by the rivers over one third its extent. Such are the llanos (levels) of Venezuela. They are generally destitute of trees. In the dry season the greater part of the surface presents a bare sun-burnt desert, over which the least agitation of the air whirls clouds of dust. But no sooner does the rain fall than the scene changes totally; vegetation springs forth and spreads itself abroad with surprising rapidity, and the arid waste becomes a rich garden. The rivers, hitherto dry, are now quickly filled, and their banks being low the waters spread over the llanos, forming great seas, which toward the foot of the Andes penetrate even into the majestic forests. The plains, the elevation of which is above the level of inundation, feed cattle and horses in great numbers.


LLANOS OR PLAINS.

7. Among the rivers of Venezuela, the Orinoco holds decidedly the first place. This great river rises in the mountains of Parima, winds successively west, north, and east through the center of the Republic, and enters the Atlantic by numerous mouths in latitude 8° 40′ north. Its course is estimated at 1,600 miles, for more than the latter half of which, or to the rapids of Atures, it is uninterruptedly navigable. The area of its basin is about 200,000 square miles, and from this it receives no less than 400 navigable tributaries. The principal are the Meta and Apure, each having a navigation of 500 miles, and the Guaviare and Caroni. By the Cassiquiare it has a singular navigable communication with the Negro and Amazon, and in the upper part of its course are several large cataracts and long rapids. About 200 leagues from the ocean its breadth is about three miles, and at Bolivar, to which the tide reaches, it is four miles across, and when lowest about 65 fathoms deep. At 100 miles from the sea it separates into a delta of many mouths, and thus enters the Atlantic. The Cuyuni runs east from the mountains of Parima, south of the Orinoco, to join the Essequibo, in British Guayana.

8. The rivers flowing into the Caribbean Sea are of much inferior magnitude; the most important of them are the Zulia, Catatumba, and the Motatan, falling into Lake Maracaybo; the Tocuyo, running northeast between the provinces of Coro and Carabobo; the Tuy, running east through the plains south of Caracas; the Unare, 50 miles farther east, and the Guarapiche, which enters the Gulf of Paria. About 200 lakes or lagoons are enumerated within the territory; but most of these are the results of inundation, and only two of the whole number are noteworthy for extent or beauty, viz., Maracaybo and Valencia.

9. The chief harbors are those of Cumana, on the north side of the Gulf of Cariaco, and Puerto Cabello, on the Caribbean Sea. La Guayra owes its importance chiefly to its vicinity to Caracas and to the populousness of the neighboring country.

10. Of the whole surface, high mountains occupy 106,000 square miles; summit plains, 1,800; meadows, 18,200; llanos or plains, 261,000; lakes, 8,600; lagoons and marshes, 2,600; lands subject to overflow, 27,600; and islands, 600 square miles.

11. The climate of Venezuela is essentially tropical; and the wet and dry seasons are well marked. On the coast there are two rainy seasons and two dry seasons—in December and

January are the short rains, and from April to July the long rains, and intermediate are the two dry seasons. On the coast mountains the rains are very heavy, and in some parts of the country, as at the foot of the Andes, they never entirely cease. The heat on the coast is generally excessive, but in the plains of the Orinoco, and especially on the borders of the river, the air is cooled by rapid evaporation. The lowlands about the delta, however, reek with pestilential exhalations, and elephantiasis and goitre seem to be here endemic diseases. The whole country, excepting the alluvial tracts about the Orinoco, is liable to earthquakes: in 1812 desolating shocks, which laid in ruins Caracas, La Guayra, and Puerto Cabello, were felt along the coast through its whole extent, and were almost equally destructive in the interior.

12. Owing to the equatorial position of Venezuela, the variety of its surface, and its humid climate, the flora of the country is one of the richest. From the level of the sea to the height of 3,300 feet extends the region of palms, mingled with which are the cardones and cacti of candelabra forms, sensitive mimosæ, pine-apple or bromelia, and the *palo de vaca* or cow-tree, which yields, on incision, a nutritious fluid resembling milk. Among the large timber trees may be mentioned the bauhinia of colossal size, the bombox ceiba, and mahogany; and sarsaparilla, copaiba, dragon's-blood, and other drugs, besides caoutchouc, are all produced in the same region.

13. Beginning at an absolute elevation of 2,000 feet and extending up to 9,000 are the febrifuge plants (cinchonas), sometimes forming great forests by themselves. Trees grow stunted and bare at 8,000 feet, where all the grains of temperate regions attain perfection. Alpine plants show themselves at a height of 9,500 feet, increasing upward till they approach their upper limits, between 13,000 and 14,000 feet. At the elevation of 13,700 feet phanerogamous vegetation disappears altogether, and only lichens and hepaticas cover the rocks as far as the limits of perpetual snow.

14. The forests are amply stocked with the feathered tribes and with monkeys. While the monkeys occupy in families the upper forest regions, the tapir, the largest of American pachyderms, wanders below in solitude along the banks of the rivers. The vaquira, a kind of wild hog, though much smaller than the tapir, is more formidable, and when in large herds fearlessly attacks the hunter. The jaguar or American tiger, being hunted for the sake of its highly-prized skin, is growing rare; and the puma or lion is seen only in the deep mountain forests. The manati, or sea-cow as it is sometimes called, often weighing 800 pounds, is found in the Orinoco and its affluents to the foot of the Andes and in Lake Maracaybo.

15. Venezuela, though not ranking among mineral countries, has, nevertheless, many of the more important. Gold was formerly mined in the mountain region of the west, and several towns in that direction owe their foundation to the prosperity of the mines. Silver has also been discovered in the mountains of Merida. But the copper of Aroa has proved more valuable than its silver. These mines, situate in the hills of San Felipe, about 60 miles west of Puerto Cabello, are extremely productive. In Barquisimeto there are mines of tin, but these are not at present worked. Coal is said to be abundant in the coast districts, but chiefly in Coro; at Araya, facing the sea on the peninsula north of Cumana, are extensive salt mines, which yield the purest salt. Asphaltum and petroleum are abundant round Lake Maracaybo.

16. The Republic is divided into thirteen provinces, and these into cantons, parishes, etc. The provinces, with their extent and population, are as follows:

Provinces.	Area, sq. m.	Population. 1834.	1844.	1854.	Chief Towns.
Apure	22,134	15,479	18,575	22,490	Achâguas.
Barinas	23,728	109,497	131,396	157,675	Barinas.
Barcelona	13,774	52,163	62,595	75,114	Barcelona.
Barquisimeto	9,305	112,755	135,306	162,367	Barquisimeto.
Carabobo	8,080	96,967	116,361	139,633	Valencia.
Caracas	33,819	242,888	291,466	349,759	CARACAS.
Coro	11,197	40,476	48,571	58,285	Coro.
Cumaná	17,409	50,671	60,805	72,966	Cumaná.
Guayana	239,773	56,471	67,765	81,318	Bolivar (Angostura).
Maracaybo	33,082	42,882	51,398	61,678	Maracaybo.
Margarita	441	18,305	21,966	26,359	Asuncion.
Merida	10,763	62,116	74,539	89,447	Merida.
Trujillo	4,307	44,788	53,746	64,495	Trujillo.
Total	427,842	945,408	1,134,489	1,361,386	

The population for the years 1844 and 1854 are estimated on the basis of twenty per centum increase in the decades 1834–44 and 1844–54. That for 1834 is according to census.

17. More than half the population is made up of people of color, mestizoes, mulattoes, zamboes, and other mixed races; the creoles or people of European descent amount at the utmost to a fourth; about one sixth consists of civilized Indians, and the remainder in about equal parts of independent Indians and persons of African descent.

18. Venezuela is essentially an agricultural country, and to this branch of industry and those depending upon it almost the whole population is devoted. The staples produced are coffee, cocoa, indigo, sugar, cotton, tobacco, cochineal, and tropical products generally, for which the climate and soils are eminently adapted. The northern valleys are the most productive regions of Venezuela, and here heat and moisture combine to the creation of a luxuriant vegetation. The great southern plains are fitted chiefly for pasturage. Mining, as before intimated, is a neglected industry, and where carried on is pursued without energy. The pearl fisheries along the coast, once so important, are now completely abandoned. Manufactures are still in their infancy, and comprise only a few simple articles of domestic use. All kinds of industry, indeed, are still in their primitive condition; little is done by machinery or the implements supplied by modern science, and the old wooden plow is still used by the agriculturist.

19. Under such circumstances the necessities of the country for machine-manufactured articles are supplied by importation; and hence a large commerce is carried on, amounting from $10,000,000 to $12,000,000 annually, the value of exports in ordinary years being somewhat larger than that of imports. In 1853–4 the value of merchandise imported amounted to $5,692,388, and the value of domestic products exported was $7,139,804. The trade is chiefly with the United States, Great Britain, France, Spain, the Hanse Towns, Denmark, and Holland. In the year named, 1,069 vessels (100,004 tons) arrived from, and 1,651 (113,810 tons) sailed for foreign ports. The principal exports are coffee, indigo, and hides, etc.

20. The capacity of the country for production and consumption can not be measured by its present status. With an increased population (and the country would easily support a hundred-fold its present number of inhabitants), with internal peace (now apparently consolidated), with the introduction of new arts and modern machinery requisite to develop the rich resources of its prolific soil, its mines and materials for manufacture, and with a commensurate extension of its lines of intercommunication, by means of the railroad and steamboat, Venezuela might be made one of the most productive and wealthy countries of the world. For the purposes of commerce its geographical position is unsurpassed, and its great rivers, reaching from the sea to the Andes, open to the world the riches of a third part of a continent. Thus the resources and facilities of the country determine for it a future at once brilliant and materially grand; and already the germ of industrial regeneration is visible throughout the Republic. The steamboat has appeared on the Orinoco, and railroads are projected to connect the interior with the coast.

21. Venezuela is formally a republic. Citizens are such by birth or naturalization, but to exercise political rights the constitution requires certain property qualifications, and they must also be able to read and write. The people, however, have only one act of sovereignty—that of choosing electors, and these in their turn make all elections. Every 4,000 persons choose one elector for two years; and these assemble biennially in the provincial capitals and vote for president or vice-president and one half the senators and representatives, each being elected for four years. It requires a two-third vote to elect the president or vice-president, failing which the choice is made by Congress from the three candidates having the highest number of votes. The president must be a native-born citizen, and 30 years of age.

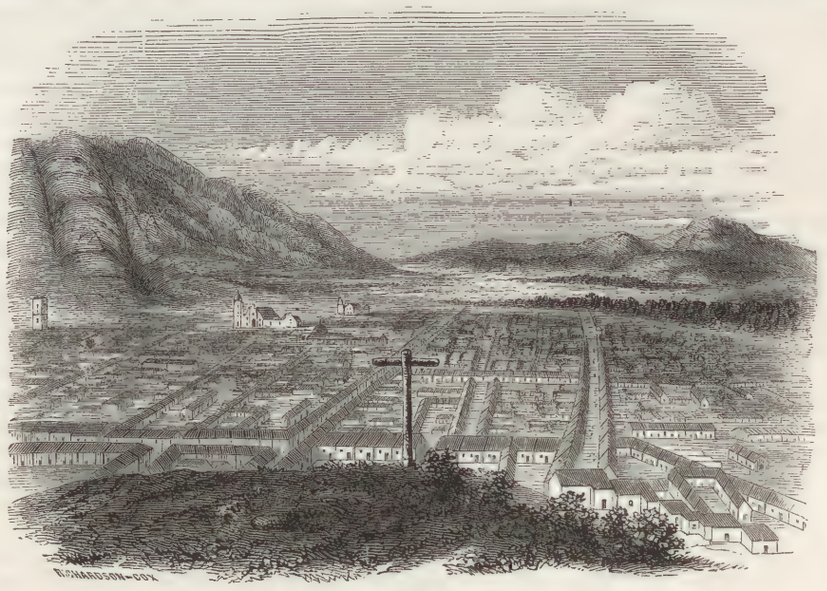
22. Congress is divided into two chambers—one of senators, two from each province, and the other of representatives, one for each 20,000 inhabitants. Congress meets on the 20th January, annually. The executive is vested in the president. Three secretaries (namely, of the interior and justice, of finance, and of war and marine) are the organs of his powers, and these are responsible. In important cases the president consults the advising or executive council, which is composed of the vice-president, an officer of the supreme court, four advisers nominated by Congress, and the three secretaries. The president is ineligible for election for the term succeeding. The qualifications for all superior officers are highly burdensome. The judicial function is vested in the supreme court, the superior court, courts of first instance, and other inferior tribunals. The judiciary is entirely independent.

23. The form of government in Venezuela is intermediate between centralism and federalism, and to effect this the constitution, in addition to the general government, provides for what may be termed a municipal power in the executive head and legislative bodies of the several provinces, to which belong certain specified authorities. The provincial legislatures, the members of which are elected at the same time and places, in the same manner and for the same term as members of Congress, meet on the 1st November each year, in the capitals of the provinces. As regards provincial deputies, one is sent from each canton, but each province must send at least seven, although the number of cantons be not so many. The ordinances and resolutions of these bodies pass to the governors, who can object to them within five days. Congress has also the power of disapproving their acts. The civil jurisdiction of the provinces is under the charge of governors dependent on the national executive.

24. The religion of the country is the Roman Catholic, and the public celebration of all others is prohibited. The church is presided over by the archbishop of Caracas and his several suffragans. All the clergy are paid by the State. The inquisition was abolished in 1821. Elementary education has been legally provided for, but as yet little progress has been made in this essential element of civilization. According to the law each parish ought to have a primary school, and the principal towns a higher school. Colleges or universities are found in the capitals.

25. The public press of Venezuela is of inferior importance, and numbers only three separate publications, circulating less than 100,000 copies annually. These are "El Diario de Avisos," issued in Caracas, "El Correo del Orinoco," issued in Ciudad Bolivar, and "El Diario Mercantil," issued in Puerto Cabello. The first named is the government organ, and all are of a commercial character.

26. Caracas, the capital of the Republic, is situate 12 miles south-southeast from La Guayra, its port, on the Caribbean Sea, from which it is separated by a chain of mountains,



CARACAS.

the highest point of which on the road is 5,160 feet, and the elevation of the city itself is 2,880 feet above the sea. Latitude 10° 30′ north, and longitude 66° 54′ west. The Guayra bounds it on the south, and three other streams pass close to the city, namely, the Arauco, Caroata, and Catucho, over which are neat bridges. The Catucho supplies the city with

excellent water. The city is well and regularly built, and almost all the streets, which are straight and wide, are furnished with fountains. The houses are solidly built of brick or earth faced with stucco, often richly decorated. Many of them have terraced roofs. There are eight squares, the chief of which is the Plaza Mayor, where the market for fish, vegetables, and fruits is held—the east side is principally occupied by the Cathedral, the south by the University, and the west by the public prison. The chief public buildings are the churches, of which there are seven, all solidly built, and in the interior richly ornamented; and the convents, of which there are five—three for monks and two for nuns. The most splendid church is that of Alta Gracia. Caracas has also several hospitals and a large theater. The trade of the city is considerable, and consists of the products of the adjacent fertile valleys. Population 70,000.

27. La Guayra, the principal port of the Republic, is a poorly-built, tortuous town of about 10,000 inhabitants. It is closely surrounded by high mountains and rocks, and is one of the most unhealthy sites of the coast. It contains no noteworthy buildings. The port is unsheltered, but it has good anchorage in from 6 to 30 fathoms, and is well defended by land batteries. A railroad is being constructed to Caracas.

28. To the east of Caracas, on the coast, the principal towns are Barcelona and Cumana, and southeast of it, on the Orinoco, is the city of Bolivar. Barcelona (pop. 15,000) is situate at the mouth of the Rio Neveri, in latitude 10° 6′ north, and longitude 64° 47′ west. Its site is very unhealthy. The houses are mud-built and the streets unpaved, and it is unconditionally a most miserable place; but it has a tolerable harbor and a respectable commerce, and the country round is extremely fertile. Cumana (pop. 15,000), near the mouth of the Gulf of Cariaco, is built on a dry, arid plain, about a mile from the sea, in latitude 10° 27′ and longitude 64° 12′, and has extensive suburbs. It is a better built town than Barcelona, but its site is subject to earthquakes. The port is capable of containing all the navies of Europe, and the whole gulf, which is 42 miles long and from 7 to 9 broad, affords excellent anchorage. Its commerce, however, is very limited. Cumana is the oldest European city of the continent, having been founded in 1523. Bolivar or Angostura (pop. 8,600) lies on the north bank of the Orinoco, 240 miles from the sea, in latitude 8° 8′ and longitude 63° 55′. The streets are regular and well paved, and the houses generally built of stone. The strait (Angostura) on which the city is built is defended by a fort on a hill across the river. It is the chief port on the Orinoco, and has a trade in cotton, indigo, tobacco, coffee, cattle, etc.

29. Westward of the capital the principal maritime towns are Puerto Cabello, Coro, and Maracaybo, and to the southwest are the towns of Barquisimeto, Barinas, Trujillo, Merida, etc. Puerto Cabello (pop. 6,000) is situate in the Gulf of Triste, 20 miles northwest of Valencia, of which it is the port. The town stands on an island connected with the mainland by a bridge, and has an excellent harbor and a thriving commerce. A railroad is under construction between Puerto Cabello and San Felipe, 54 miles. Valencia (pop. 16,000) is one of the finest cities of the Republic, and has a large trade both with Puerto Cabello and Caracas. The lake near which it is situate is 22 miles long and 6 in medium width, with a depth of 12 or 15 fathoms. The north shores, and the valley of the Aragua, which river empties into the lake, are highly cultivated. Coro (pop. 5,000) is a meanly built town at the head of the gulf of the same name, an arm of the Gulf of Venezuela, formed by the peninsula of Paraguana. It had formerly a large trade with the West India Islands. Maracaybo (pop. 14,000), on the west shore of the strait connecting the Gulf of Venezuela with Lake Maracaybo, has a deep harbor, and carries on a large trade with the interior. The town is ill-built. Few other towns are of individual importance.

30. The coasts of Venezuela were discovered by Columbus in 1498, and soon after unavailing attempts were made to colonize, and ultimately the country was granted by the Spanish government to the Weltzers, a German mercantile company. Under this regimé both Spaniards and natives suffered grievous tyranny. In 1750 the company was dispossessed, and a supreme chief under the title of captain-general was appointed.

31. From the latter period the country was highly prosperous until 1806, when a gallant but unfortunate attempt was made to secure its independence. The entrance of the French into Spain, however, and the subsequent derangement of Spanish affairs, gave the patriots an opportunity. A "Junta Suprema" or congress was convened at Caracas, in which deputies from all the provinces except that of Maracaybo were present. This junta at first published its acts in the name of Ferdinand VII.; but the captain-general and the members of the Audiencia were deposed, and the new government assumed the title of the Confederation of Venezuela. Congress finding the people in favor of independence, formally proclaimed the country a free republic on the 5th July, 1811. A liberal constitution was formed, and affairs wore an aspect favorable to the patriots until the fatal earthquake of 1812, which, operating on the superstitions of the people, led to a change in public opinion. Monteverde, a royalist general, took advantage of the crisis, and marching against Caracas defeated the patriots.

32. In 1813 the country was again emancipated by Bolivar, who in turn again and again was overcome, but at last, in March, 1817, his forces were victorious. Bolivar was now invested with dictatorial powers, and the contest was vigorously pursued. On the 17th December, 1819, a union was formed with New Granada, and the two states merged into the Republic of Colombia. In the mean time the joint armies were active in the field, and continued the war until the 24th June, 1821, on which day the patriot struggle was crowned with final success on the battle-field of Carabobo. The war of independence closed in 1823 by the taking of Puerto Cabello by General Paez.

33. The Republic of Colombia, formed by the union of Venezuela and New Granada in 1819, lasted but ten or eleven years. In December, 1829, Venezuela withdrew from the confederation and again became a separate state, under the provisional dictatorship of Paez. In 1830 Bolivar resigned the presidency of Colombia, and was succeeded by Joaquim Mosquera; and Venezuela once more joined the confederation, but the new alliance was of short duration; and before the end of the year a final separation was accomplished, and Colombia was eventually divided into the three governments of Venezuela, New Granada, and Ecuador.

34. On the 30th March, 1847, a treaty was concluded at Madrid, by which Spain renounced forever all rights of sovereignty in Venezuela, and acknowledged the country to be a free and independent republic.

35. Since the dissolution of Colombia, Venezuela has enjoyed external peace, but within her own borders has been a continual prey to faction; and the recurrence of civil war has not only greatly retarded the material prosperity of the country, but wasted its normal powers to a degree unknown in any others of the South American states. Its prosperity is now returning, and its government has become stable and efficient.

[*Weights, Measures, and Moneys.*—The legal standards are the old ones of Spain. The French metrical system is, however, about to be adopted.]

GUAYANA, GUYANA, OR GUIANA.

1. Guayana is a vast territory extending between latitudes 8° 40′ north and 3° 30′ south, and longitudes 50° and 68° west. It is bounded on the north by the easterly course of the Orinoco, on the northeast and east by the Atlantic Ocean, on the south by the Amazon and Negro, and on the west by the natural canal of Cassiquiare and the northerly course of the Orinoco. The area may be stated at 700,000 square miles.

2. This territory was formerly divided into Brazilian, Venezuelian, British, Dutch, and French Guayana; but the last three divisions alone are now recognized under this name, and so distinguished on maps, the other two having been absorbed by their respective countries.

3. The three Guayanas above alluded to are maritime territories, lying contiguous to each other from northwest to southeast, and having in general the same physical aspect.

BRITISH GUAYANA—Essequibo, Demerara, and Berbice.

4. British Guayana, the most westerly of these countries, is about 560 miles long by 200 miles wide, and contains 96,000 square miles. It is situated between latitudes 1° 20′ and 8° 40′ north, and longitudes 56° 50′ and 60° 40′ west. The coast-line is about 280 miles, extending from the river Corentyn northwesterly to the Punta Barima.

5. The whole surface of the coast lands is on a level with the high water of the sea, and when drained, banked, and cultivated, they consolidate and sink fully a foot below it. In consequence of this characteristic of the country, it becomes necessary to pay unremitting attention to the dams and sluices to keep out the sea, otherwise great destruction and damage to the land ensues.

6. Shallows or muddy banks stretch along the whole line of coast, and run several miles into the sea. These are in some parts dry, and in others covered with not more than three to four feet of water. The entire absence of all landmarks on these flat and monotonous shores, renders it difficult for strange vessels to ascertain at what particular point of the coast they are, and danger is ever present.

7. The level country extends from ten to forty miles inland, when it is arrested by a range of sand-hills of low elevation, the highest not exceeding 200 feet. Behind these hills the high land stretches out in level or undulating plains, rising here and there into eminences.

8. Notwithstanding, however, the general flatness of the country toward the coast, the interior is traversed in various directions by chains of mountains. Of these the Pacarima range, nearly in the center of the country, is the most remarkable, and exhibits the loftiest elevations, the culminating point, called Roraima by the Indians, rising to the height of 7,500 feet above sea-level. This group extends about 25 miles northwest and southeast, is composed in part of sandstone, and presents a singularly castellated appearance—the upper portions consisting of a perpendicular mural precipice 1,500 feet high, down which magnificent cascades of equal height are seen descending.

9. The other principal ranges are—the Sierra Imataca in the north, parallel to the coast at a distance of 50 or 60 miles; the Cannucu or Conocou, and the Sierra Acarai—the last occupying the southeast corner of the territory, forming its boundary in that direction. They are densely wooded, but do not reach a greater elevation than 4,000 feet.

10. The geological composition of the mountains of British Guayana is various; some of these consist of granite, gneiss, and trappean rocks and their different modifications; others, as mentioned above, are of sandstone, and others again appear to be of white quartz. Granite, however, is probably the prevailing formation. Rock crystals and red agate are met with, and very pure white clay is found in the Essequibo. The extensive flats along the shore are composed of alluvial soil and clays, resting upon granite. These alluvial flats are in many instances covered with a black vegetable matter, the detritus of numerous rivers.

11. The principal rivers are the Essequibo, Demerara, and Berbice, and the Corentyn, which forms the boundary between British and Dutch Guayana. The Essequibo is situated about ten miles west from the Demerara River, and is about 15 to 20 miles wide at its embouchure, which is studded with several low, beautifully wooded islands. The Demerara is about a mile and a half wide at its mouth, and has a course of 200 miles. It is navigable by ships for 100 miles up, when its course is interrupted by cataracts and rapids. The Berbice, 57 miles southeast, is about three miles wide at its mouth, and is navigated by moderately sized ships to Fort Nassau, a distance of 50 miles in a straight line, and by lighter vessels a distance of 200 miles. Above this, dangerous cataracts occur.

12. The climate is essentially tropical, with two dry and two wet seasons. The wet seasons embrace the months of December, January, and February, and June, July, and August; the dry seasons the intervening months. Violent thunder-storms occur at the change of the

seasons; but hurricanes, so destructive in the West Indies, are unknown. In the dry season the climate is agreeable, and in the interior even salubrious.

13. The soils are rich and fertile, and well adapted for the cultivation of the sugar-cane, but in consequence of the numerous large open drains with which the land is intersected, the plow can not be used. Vegetation, however, is singularly vigorous and luxuriant, and its forest trees, which cover about half the surface, are of the most magnificent description. The mira tree (*mimosa excelsa*) is described as attaining the height of 120 to 150 feet, and as appearing at a distance, from its immense size, like hillocks clothed with vegetation. The timber of this tree is said to be equal to the teak of the East Indies. Among the other principal trees are the green heart (belonging to the family of the *Laurinæ*), the sawany (*pekea tuberculosa*), the bully tree (*achias balata*), the sirwabally, crab-wood (*carapa Guayanensis*), and the purple heart. Among the indigenous fruits are the pine-apple, guava, marmalade, anona, sapodilla, and the Brazil and Suwarrow nuts. The cabbage-tree is common, and there are several varieties of palms. Medicinal plants also abound, including quassia, ipecacuanha, gentian, etc.; and in the forests dyeing-woods, cochineal, gum-copal, and a multitude of other valuable products. The flora is rich and varied, and includes the Victoria regia, the largest of the water lilies, whose immense bright green leaves are to be seen floating on the reaches of some of the rivers.

14. The animals are those of tropical South America generally—the jaguar, tapir, armadillo, agouti, ant-eater, sloth, deer, monkeys, and iguanas; large alligators and turtles; parrots, macaws, and humming-birds; the flamingo, Muscovy duck, toucan, and spoonbill. In the forests the vampire bat abounds. Snakes are numerous, and many of them poisonous, and troublesome insects are almost intolerably plentiful. The rivers abound with fish. The domestic animals are horses, mules, hogs, goats, and fowls. Black cattle and horses are reared on the savannahs, but are little attended to.



BOA CONSTRICTOR.

15. The colony is divided into three counties, and in 1851 contained 127,695 inhabitants, of which 86,451 were natives of the country. The population in that year was distributed as follows:

Counties.	Area, sq. m.	Population. Rural.	Urban.	Total.	Chief Towns.
Essequibo	44,000	22,925	—	22,925	—
Demerara	27,000	51,259	25,508	75,767	Georgetown.
Berbice	25,000	24,370	4,633	29,003	New Amsterdam.

—in the above returns no account is taken of an estimate of 7,000 aborigines, 445 sailors, and 854 soldiers; including these the population would amount to 135,994. Of the total, 86,451 were natives, 7,168 African immigrants, 7,083 old Africans, 7,682 coolies, 7,928 Maderians, and 2,088 English, Irish, Scotch, and Americans.

16. The population is composed of aboriginal tribes and of foreign settlers, Dutch, English, Africans, etc., and their descendants. The principal tribes of the aborigines are the Arrawaks, Accawais, Carabisce, Warrows, Macusies, and Wapiscanes. The last are tall and fine looking, with regular features and large noses. The Arrawaks, living in the immediate vicinity of the plantations, are the most civilized of all the tribes. They are of small stature, stout and plump, but not muscular. The Accawais are also of low stature, and their skin of a deeper red than the Arrawaks. They paint themselves with arnatto, and are very warlike and superior in courage to all the other nations. The Carabisce, who are rapidly decreasing, occupy the upper part of the Essequibo and Cayuni. They are brave, simple, credulous, and obstinate. Nothing comes amiss to them in the way of food. The Warrows inhabit the Pomeroon coast, and are mostly sailors and boat-builders, at which they excel. The Macusies are a kind and hospitable tribe, and appear to be less indolent than the Indians generally. They inhabit the vicinity of Pirara, a village far into the interior. There are also several other tribes in the interior of which little is known. Some of these, inhabiting the upper regions of Essequibo, are said to be cannibals.

17. Sugar, rum, molasses, coffee, and hard-woods form the principal commercial materials of export, and might be cultivated and obtained to an unlimited extent were labor abundant. Cotton was also formerly cultivated largely, but of late years it has been almost entirely abandoned, and to a considerable extent the production of coffee has decreased. The general commerce of the country is prosperous and yearly increasing; the exports, which in 1849 amounted only to £674,942, had risen in 1852 to £978,296, and in 1855 to £1,405,332, and the imports for those years were £658,140, £964,986, and £916,498 respectively. A large increase has also taken place in the shipping and tonnage of the Colony and in the internal traffic, including a brisk trade in cattle from the Orinoco.

18. The law by which British Guayana is chiefly governed is the Roman Dutch law of the United Provinces, and was first promulgated in the Colony on the 4th October, 1774, by the States General. The courts and administration of justice were regulated by orders in council, dated April 23d and June 20th, 1811, in pursuance of which ordinances have from time to time been framed by the local government.

19. The present government consists of a governor and a court of policy of ten members, five of whom are official and five non-official members. The official members are the chief-justice, colonial secretary, attorney-general, collector of customs, and the governor himself. The non-official members are chosen by an electoral body of seven members, called the college of Kiezers, who are themselves chosen for life or during residence, without any property qualification, by the votes of all the inhabitants, male or female, who personally pay an income tax on not less than $667, or taxes of any sort to the amount of $23¼. Vacancies in the court of policy arising by the resignation of the senior non-official member every second year are filled up from a double nomination made by the college of Kiezers, the governor having the casting vote. There is also a college of financial representatives elected in the same manner as the college of Kiezers, but for two years only, though eligible for re-election. The combined court or general assembly, on which devolves the expenditures of the public money, is formed by the combination of the members of the court of policy and college of financial representatives.

20. The revenue of the Colony amounted in 1849 to £94,720, and in 1855 to £218,702. In the same years the expenditures amounted to £130,701 and £228,584 respectively. The deficit is made up annually by the imperial government by a grant in aid.

21. The established church is under the charge of a bishop. In 1851 there were 41 Episcopal churches and chapels in the colony, with 10,210 attendants, and of other chapels there were 71, with 22,874 attendants. The number of children attending day-schools was about 8,000, and the number of schools upward of a hundred.

22. The principal towns are Georgetown, in Demerara, and New Amsterdam, in Berbice. Georgetown, the capital of the Colony, on the right bank and at the mouth of Demerara River (latitude 6° 49′ 24″ north, and longitude 58° 11′ 30″ west), is a Dutch-built town, with broad and regular streets, mostly with canals in the middle communicating with each other and with the river, and crossed by a multitude of bridges. The houses, as a security against dampness, are raised three or four feet from the ground on hard-wood posts. Many of them have gardens attached, and the luxuriant foliage embowering them adds greatly to the pleasing aspect of the city. Water Street, which faces on the river, is wholly occupied by merchants, whose warehouses and wharves jut out into the stream, and this is the only street exclusively occupied by Europeans. The principal buildings in the city are the Town Hall, with the government offices, an imposing stone edifice; the Episcopal Cathedral, also of stone, and the Colonial Hospital. Besides these there are eleven other places of worship, numerous schools, a mariner's hospital, a lunatic asylum, two theaters, etc. The market-place, adjoining the Town Hall, is open, airy, and surrounded by elegant shops, well supplied with all kinds of provision. At the mouth of the river is Fort Frederick William, the barracks and military hospital, and a fine light-house. The anchorage in the harbor is good in 17 feet water, but on the bar the depth is only 15 feet. Georgetown is the chief commercial place in the Colony. Population (1851) 25,508.

23. New Amsterdam, at the mouth of Berbice River, extends for a mile and a half along its east bank. Like Georgetown it is intersected by canals, and each residence is separated by a trench or ditch filled and emptied by the tide. It has commodious wharves and warehouses, and the entrance to the river is defended by three strong batteries. Population (1851) 4,633.

24. Guayana is said by some to have been discovered by Columbus on his third voyage in 1498; others attribute the discovery to Vasco Nuñez in 1504. The first settlement was formed by the Dutch, in 1580, on the river Pomeroon, and called New Zealand, whence they spread east to the Essequibo and Demerara. Between 1781 and 1803 the Colony repeatedly changed masters, and was severally in the hands of the Dutch, English, French, and Portuguese. On the breaking out of the war in the last-named year it was finally seized by the British, and was confirmed to that nation by the convention of London in 1814.

DUTCH GUAYANA—Surinam.

25. Dutch Guayana is situated between the British and French colonies, having the former on the west and the latter on the east, and geographically between latitudes 1° 30′ and 6° 0′ north, and longitudes 53° 30′ and 57° 30′ west. Its coast-line extends from the river Corentyn to the river Maroni, 200 miles. The length of the territory, north and south, is 300 miles, and its general width, east and west, from 225 to 230 miles. Area, 59,765 square miles.

26. The general aspect of the country is the same with that of British Guayana, above described—flat and swampy on the coast, and mountainous in the interior; well watered by numerous streams, flowing generally from south to north, and of which the Surinam, the Saramacca, and Coppename are the chief. It has also a similarly warm, moist climate, is very fertile and well cultivated, resembling an extensive garden, and yields similar products.

27. At the close of 1850 the Colony contained 61,080 inhabitants, of whom 12,401 were Europeans and creoles, 8,000 bush negroes, 1,000 Indians, and 39,679 slaves. Of religious sects the Moravians numbered 17,933 members; and there were 15 schools with about 1,200 scholars.

28. On 273 plantations, consisting of 366,548 acres, 48,815 acres were under cultivation. The staples produced in 1851 were sugar, rum, molasses, coffee, cocoa, and cotton, together valued at $1,243,310. The live-stock consisted of—horses 168, mules 59, horned cattle 5,564, sheep 3,115, goats 454, and hogs 4,664. Surinam in 1851 was visited by 246 vessels; imports $835,025, and exports $1,150,841. The trade is chiefly with Holland. There is a line of mail steamers between Paramaribo and Demerara.

29. The Colony is ruled by a governor, appointed by the crown, and a council, elected by the freeholders. Justice is administered by a supreme court, courts of minor jurisdiction, and a court of inheritance and orphans. The receipts into the treasury in 1850 amounted to $436,072, and the disbursements to $416,959. The slaves of this Colony were emancipated in 1851, but remain as indentured apprentices for 12 years, and work without pay. The army consists of 610 men of all arms, and the navy of 11 vessels, chiefly small.

30. Paramaribo, the capital, is situate on the right bank of the Surinam, about 10 miles from its mouth. A little north from the town is the fort of Zeelandia, where the governor resides, and where also most of the government establishments are situate. Paramaribo has a military and civil hospital, and a charitable society. New Amsterdam is the principal port. Batavia, Orange, and Fredenburg are on the coast, and Wilhelmsburg, Magdenburg, and Jews' Town in the interior.

31. The first settlements were made by the Dutch in 1580, on the Pomeroon. The Colony rapidly spread eastward over Demerara and Essequibo. In 1781, 1796, and 1803 it was taken by the British, and from the latter period only the present restricted territory has been held by the Dutch authorities.

FRENCH GUAYANA—Cayenne.

32. French Guayana occupies the most easterly portion of the country, and has a coast-line extending from the Maroni to the Oyapok, a distance of 220 miles. It is situated between latitudes 2° 12′ and 6° 15′ north, and longitudes 51° 30′ and 54° 30′ west; with an average length, north and south, of 260 miles, and a breadth, east and west, of from 160 to 220 miles. The area is computed at 27,560 square miles.

33. This territory also resembles that of British Guayana in its physical features, climate, and vegetation. The coast is low, consisting of a flat alluvial tract of great fertility, and in

some places marshy and covered with thick forests of mangroves. The highlands in the interior are also fertile, and the whole country is exceedingly well watered, the principal streams being the Maroni, Sinamari, Ouya, Approuague, and Oyapok, the first named dividing the French and Dutch territories, and the last named the French and Brazilian.

34. The island of Cayenne is separated from the continental territory by a narrow channel, called on the north the river Cayenne and on the south the river Ouya. It is about 18 miles long, north and south, and between 10 and 12 miles broad. On the northwest part of the island there are some hills and elevated grounds, but on the south it is low and swampy, and in the rainy season inundated.

35. The Colony is divided into two districts—Cayenne and Sinamari, and these into 14 communes. In 1851 the population amounted to 22,010, of which 14,997 were negroes. Since this period, however, and especially since 1851, the population has been largely increased by the transportation from France of political offenders, whose presence in Paris or on the Continent was not desirable.

36. The industry of the colonists is essentially agricultural and commercial. The plantations are chiefly on the island of Cayenne, at the mouth of the river of the same name, but there are others on the mainland of inferior consequence. In addition to the staples generally cultivated in this region, French Guayana produces pepper, cloves, cinnamon, nutmegs, etc., introduced from Asia, and which, excepting the nutmeg, thrive well. The annual value of the imports and exports is between $2,500,000 and $3,000,000, the trade being almost wholly with the mother country.

37. The government is vested in a governor, assisted by a privy council, composed of seven of the highest officials, and a colonial council of 16 members elected by the colonists. The expenses of the government are defrayed partly by the imperial authorities and partly by customs, sales of lands, taxes, etc.

38. Cayenne, the capital of the Colony, is a sea-port town on the northwest part of the island of the same name. Latitude 4° 56′ and longitude 52° 20′. It consists of an old and a new town. The old town is a miserable place, with steep and narrow streets, and surrounded by walls with high bastions and a ditch. In the new town the streets are wide and clean, and the houses good. There are here also large warehouses for storing merchandise, and a handsome church. In the old town are the government house and an ancient Jesuit's college. The harbor is shallow, but not otherwise objectionable. It is protected by a fort and several batteries. The chief produce of the country is dispatched from this port. Population 6,000.

39. The French first settled in Cayenne in 1604. In 1763 the French government, with a view of improving and otherwise increasing the importance of the Colony, sent out 12,000 emigrants; but nearly the whole of these perished from exposure to the climate, which was then extremely insalubrious. In 1809 the Colony was captured by the united forces of the British and Portuguese; but was restored to the French at the peace of Paris in 1814.

EMPIRE OF BRAZIL.

1. Brazil is situated between latitudes 4° 23′ north and 32° 45′ south, and longitudes 34° 56′ and 73° 20′ west. It is bounded on the north by Venezuela and Guayana, on the northeast, east, and southeast by the Atlantic Ocean, on the south and southwest by Uruguay, Paraguay, and Bolivia, and on the west and northwest by Peru, Ecuador, and New Granada.

2. This vast Empire, occupying more than two fifths of the entire surface of South America, is extremely irregular in outline and dimensions, but in form approximates a triangle, with its base to the north. Its greatest diameter, east and west, on the parallel of Cape San Augustin (8° 21′ south), is 2,630 miles, and its greatest extent, north and south, on the meridian of Cape Orange (51° 27′), is 2,540 miles. The area is approximately computed at 3,000,000 square miles. The entire coast-line, from the river Tahim or Itahy, which falls into Lake Mirim (32° 45′ south) to the head of the Bay of Oyapok (4° 10′ north) is upward of 3,700 miles.

3. The Brazilian coast has few great indentations, though in some parts smaller harbors and inlets are numerous. The principal bays, reckoning from the south extremity of the Empire, are, Ilha Grande, Rio Janeiro, and San Salvador on the southeast coast, and San Jose, San Marco, Pinçon, and Oyapok on the northeast and north. The principal capes or headlands are Frio, San Thome, San Antonio, San Augustin, and San Roque on the southeast and east, and Maguary, Norte, and Orange on the north.

4. The appearance of the coast at different places is exceedingly various. From the Tahim to the island of Santa Catarina (400 miles) it is low, sandy, and intersected by the outlets of numerous lakes or lagoons, which skirt the shores throughout this extent. From this point (27° 30′ south) to Sao Joao da Praia (21° 45′ south), a distance of 700 miles, the land is elevated and mountainous, but when nearly approached presents a highly picturesque appearance, its hills being clothed with thick woods and its valleys with never-fading verdure. This part of the coast, the most rocky portion of which is between Santos and Cape Frio, may be seen from sea at a distance of 50 miles. Northward to Bahia (13° south), 650 miles, the coast is in general low and level, with scarcely any indentations. From Bahia to about latitude 4° south, which embraces the whole eastern projection of the country, the coast, about 800 miles in extent, is of moderate height, nowhere rising above 30 feet, and is also destitute of harbors, excepting those formed by the mouths of rivers. From this point to the Amazon it is extremely low and marshy; but west and north of that river it is sandy and somewhat higher, though still of inconsiderable elevation. From these details it will be seen that the only portion of the coast that can be called mountainous, or which has any pretensions to picturesque appearance, is that between the island of Santa Catarina and Sao Joao, or about a fifth of the whole.

5. With the exception of the Rio San Francisco and the Parana, all the large rivers of Brazil empty themselves on the north shore; and nearly all run parallel courses from south to north, traversing the vast plains which occupy the center and northwest portions of the Empire, and presenting means of internal communication unequaled in any other part of the globe.

6. The surface of Brazil generally is divided into upland and lowland, in nearly equal portions. The former, which comprises the hilly districts and table-lands, extends over the east, south, and central parts, and has an average elevation of 2,000 to 2,500 feet, although at some points it reaches 4,000 and even 6,000 feet. The lowland comprises the silvas or woody regions, and the llanos or plains and flats—the former lying principally along both sides of the Amazon, and the latter stretching mainly along the north and northeast shores.

7. The mountains of Brazil extend generally, like the Andes, north and south, although numerous inferior ranges traverse the country in various other directions. The most connected chains, and those in which the highest summits occur, are the Serra do Espinhaco, the Serra dos Orgãos, and the Serra do Mar. The first originates in Bahia (latitude 15° south), and, intersecting Minas Geraes, terminates at 23° south; it lies parallel to the coast, and at a distance of 200 to 250 miles, culminating in Itambe, 5,755 feet high, and Itacolumi, 5,750 feet. The Serra dos Orgãos (so-called from the fancied resemblance of its peaks to the tubes of an organ) and the Serra do Mar, which form, in fact, but one chain, lie also parallel, but at a distance from it of a very few miles only, extending from about the 22d to the 27th line of south latitude, and culminating in the Morro dos Canudos, which occurs in the Orgãos division, and has an elevation of 4,476 feet.

8. Hilly regions also extend north and west from these chains through Minas Geraes, Pernambuco, Goyaz, and Matto Grosso, but none of the peaks appear to attain great height. Toward the Rio Paraguay the hills become lower, and terminate on the Bolivian frontier in elevated marshes. In this locality occurs the watershed between the affluents of the Amazon and La Plata. It is of very inconsiderable elevation, and some of the sources of the Madeira, which falls in the former, and of the Paraguay, the head stream of the latter, are not more than three miles apart, and might easily be joined by means of a canal. Along the east side of the Empire the table-land extends as far north as latitude 3° south, but inland, in Matto Grosso, not farther than latitude 12° south; and north of 10° south the Serra Ibiapaba may be taken as the western limit. This table-land occupies half the country with part of the Argentine and Uruguay territories. Its average elevation is from 2,000 to 2,500 feet.

9. Along the Amazon and its affluents the vast plains or silvas are said to occupy a space equal to six times the area of France. Another great plain stretches between the Serra Ibiapaba and the river Tocantins, measuring north and south upward of 600 miles, and east and west more than 400.

10. The river system of Brazil, in the number and magnitude of its constituents, is unequaled. The northwest portion is literally interlaced with streams. By far the greater portion of these have a northerly direction, and finally find their way to the Amazon and the Atlantic. The Amazon, which in its upper course has the name of Maranon, enters the Empire from the west in latitude 4° 30′ south, and longitude 70° west, and after a northeast course from this point of about 1,800 miles, falls into the Atlantic near the equator. It is the most voluminous, if not the longest, river of the world.

11. The river next in size is the San Francisco, which, after flowing north for about 800 miles, suddenly turns due east, and then southeast, falling into the sea about 11° south latitude. In order of magnitude follow the Negro and Madeira, both tributaries of the Amazon—the



FALLS OF THE MADEIRA.

former flowing from the northwest and the latter from the southwest. The other large rivers in this portion of the country are—the Branco, a tributary of the Negro; the Tapajos and Xingu, large affluents of the Amazon; the Araguay, Tocantins, Maranhao, and Paranahiba.

12. In the interior of the south portion of the Empire occur the large rivers Uruguay, Yguaza, Paranapanema, Tieta, Para, Paraguay, and Parana, with numerous smaller but still large rivers, winding in all directions through every province. Most of the rivers in this section have a west and south direction; those having the former proceed from the west side of the coast mountains, and those having the latter from the hilly tract crossing Matto Grosso. Of the rivers last named, the Paraguay and Parana are the largest, and have the longest

courses—the former from the central highlands, and the latter from the hilly districts of Goyaz, not far from the sources of the Tocantins. The Parana forms through a portion of its course the boundary between Brazil and Paraguay.

13. Although unrivaled in the number and magnitude of its rivers, Brazil has comparatively few lakes of any great extent. The largest is the Lagoa dos Patos, in Rio Grande do Sul; it is 150 miles in length and 35 in its greatest width, and is separated from the Atlantic by a narrow strip of land only, discharging its waters into the ocean by a channel called the Rio Grande. Farther north, several smaller lakes occur, the largest of which may be from 20 to 30 miles in length, but other than these there are hardly any worthy of mention in the whole country.

14. Granite prevails to the extent of 2,000 miles along the coast, and, with sienite, forms the basis of the table-lands. The superstructure of the latter consists of metamorphic and igneous rocks, sandstone, clay slate, limestone, in which are large caverns with bones of extinct animals and alluvial soil, of which the north part of the country is almost wholly composed, being intersected by numerous large streams.

15. The mineral resources of Brazil are considerable, and include gold, silver, and iron, diamonds, topazes, and other precious stones. No other country is so rich in diamonds. The most celebrated mines are those of the Serra do Frio, a district surrounded by almost inaccessible rocks, and guarded with the utmost vigilance. The diamonds have been hitherto found in the beds of rivers only, and are washed from the sands and flints with which they are mingled, much in the same way as gold. The largest known diamond was found in the Rio Abasté, in 1791, and weighs 138 carats. Another, worth $220,000, was found in 1847. About 20,000 negro slaves are employed in the diamond mines; and any one who finds a diamond weighing 17 carats obtains his liberty; a proportionate reward being apportioned for those of lesser value. Government receives one fifth the total value of all gold and diamonds produced.

16. As almost the whole of Brazil lies south of the equator, and in a hemisphere where water is a prevailing element, its climate is generally more cool and moist than that of countries under like zones in the eastern hemisphere. This is peculiarly the case in the flat portions of the country, where impenetrable forests occupy the alluvial plains and prevent radiation. In the south parts of Brazil, in consequence of the gradual narrowing of the continent, the climate is of an insular character—cool summers and mild winters. The northern provinces are subject to heavy rains and violent storms, but the south regions rejoice in a settled and salubrious atmosphere. From October to March is the rainy season, which sets in with violent thunder-storms. The mean temperature of the year varies from 72° to 86° Fahr. Generally, however, the climate is delightful. In the lower tracts of the north the air is somewhat sultry and oppressive, but the nights are deliciously cool. Vegetation is here vigorous and profuse. Near the coast the temperature is modified by the trade wind, which, after traversing the Atlantic, fans the shores of Brazil, imparting a refreshing coolness to the atmosphere.

17. The soil of the country, so far as it has been tested, is highly fertile. As yet not more than the one hundred and fiftieth part of the surface has been brought under cultivation, and this portion is generally limited to the coast and to the northeastern section, which is peculiarly well adapted to maize, sugar, and coffee. The pastures, however, are of vast extent, and being covered with prodigious herds of horned cattle, form one of the principal sources of the wealth of the country.

18. Being almost wholly within the palm region, the vegetation of Brazil is characterized generally by the peculiar physiognomy which that family of vegetation impresses on tropical countries. Of these no fewer than one hundred species are indigenous. But it is in the boundless forests of Brazil that the vigor of vegetation is exhibited in its most imposing forms. "If the name of primeval forest," says Humboldt, "can be given to any forest on the face of the earth, none can claim it perhaps so strictly as those that fill the connected basins of the Orinoco and the Amazon." It is not, however, in the plains alone that this gigantic vegetation is met with; the sides of the mountains are clothed with trees of enormous size, including the most beautiful specimens of the palm and tree-fern. The cocoa-nut palm attains a large size on the sea-shores, and the curious bertholettia, or monkey-pot-tree, the kernels of which are exported from Para under the name of Brazil nuts, is met with in many localities, but more especially in the northwest. Among the more valuable trees of the Brazilian forests are the cacao or chocolate tree, the Brazil-wood tree, the rose-wood tree, the caoutchouc or India-rubber tree, the fustic, mahogany, and a variety of others well adapted for the purposes of ship-building. The beauty, variety, and abundance of flowers of this extraordinary country are not less remarkable than any other of its vegetable products.



BRAZILIAN FOREST.

19. The woods of Brazil swarm with rapacious animals, tiger cats, hyenas, jaguars, sloths, porcupines, etc. Wild hogs are also common. Monkeys are likewise numerous, and vampires in some districts are so destructive as to prevent the rearing of cattle. Among the feathered tribes are, the smallest, the humming-bird, and the largest, the emu and vulture. Water-fowl abound on the lakes and lagoons. The reptiles are the boa constrictor, the corral snake, the sorrocuco, and the jarraraca, all venomous. In the marshy countries of the south the boa or python is said to attain a length of 48 feet. The insects of Brazil are many of them remarkable for the beauty of their colors and their size, especially butterflies. Other descriptions are so numerous in the woods that their noise is heard in a ship at anchor some distance from the shore; while the white ants are so prolific and destructive, that there is not a manuscript in the country 100 years old. The scorpion attains a length of six inches. Most of the bees of the country are stingless, and there are no less than 30 species of that description. The shores and rivers abound with fish. Among the most valuable of those caught on the shores is the garopa from 12 to 20 feet long, and is well flavored. The quantity of fish caught in the Amazon and other rivers is immense, and constitutes a principal part of the substance of the people.

20. The Empire is divided into twenty provinces, the approximate area and population of which, in 1856, were thus computed:

Provinces.		Area, sq. m.	Population.	Capitals.
Grão Para	Northeast.	532,000	190,000	Para or Belem.
Maranhão		96,000	280,000	Maranhão.
Piauhi		92,000	170,000	Oeiras.
Ceara		42,600	350,000	Portaleza.
Rio Grande do Norte		28,800	160,000	Natal.
Parahiba	East.	21,700	230,000	Parahiba.
Pernambuco		39,900	800,000	Pernambuco.
Alagoas		15,600	210,000	Maceio.
Sergipe del Rei		16,200	180,000	Sergipe del Rei.
Bahia		154,700	880,000	Bahia or San Salvador.
Espirito Santo	Southeast.	23,000	60,000	Vittoria.
Rio de Janeiro		31,800	1,400,000	Nitheroy (Praia Grande).
São Paulo		82,000	680,000	São Paulo.
Parana		77,600	70,000	Curitiba.
Santa Catarina		33,800	90,000	Desterro.
Rio Grande do Sul		98,000	240,000	Porto Allegre.
Alto Amazonas	Interior.	550,000	50,000	Barra.
Minas Geraes		223,500	800,000	Ouro Preto.
Matto Grosso		601,200	100,000	Cuiaba.
Goyaz		313,000	120,000	Goyaz.
Total of Empire		2,973,400	7,060,000	Rio de Janeiro.

—the above figures give about 2¼ persons to the square mile for the whole country; but in the province of Rio de Janeiro the ratio is nearly 27, and in Pernambuco, Alagoas, Parahiba, and Sergipe, 15, 14½, 12, and 11 respectively. Espiritu Santo has 6, Bahia 5, Ceara 4½, and Maranhao 4 persons to the square mile. In all other parts of the Empire the population is unusually sparse.

21. More than half the population of Brazil is of African origin, and in a condition of slavery. The free population consists of Europeans (chiefly Portuguese), white persons born in Brazil, mulattoes, mamalucoes (a mixed caste between white and Indians), Indians in a domesticated state called Caboclos and Indians in a savage state called Tapuyas, free negroes born in Brazil, manumitted Africans, and mestizoes (a mixed caste between Indians and negroes). The inhabitants of European origin do not exceed a sixth of the whole population.

22. The Tapuyas or native Indians of Brazil are of a copper color, robust and well-made, but of short stature. They generally go naked, paint their skins, and are fond of ornamenting their heads with feathers. To this race belong the Botocudes, a ferocious tribe which inhabits the banks of the Rio Doce and the Belmonte. They render themselves hideous by the insertion of large circular pieces of wood in the lower lip and lobes of the ears, the former giving the mouth the semblance of an ape's. They are also said to be cannibals.

23. Brazil is eminently an agricultural country, but it has also valuable mines and an extensive commerce. It is also noted for the productions of its forests.

24. In South America, after Peru, Brazil has furnished the largest amount of the precious metals. Gold, however, at the present day, is almost wholly obtained from alluvial washings, and not from the mother rock. Iron of very pure quality is worked in Minas Geraes and also in São Paulo. Platina, copper, and precious stones are also found, and the finest of diamonds and topazes are obtained. Mining operations, however, are not carried on to so large an extent as formerly, and the value of the gold and diamonds produced is comparatively inconsiderable.

25. Among the most important objects of cultivation are sugar, coffee, cotton, rice, tobacco, etc. The first two are the staples of the country. Sugar is principally grown near the coast, and coffee in the province of Rio Janeiro. The food crops consist principally of maize, mandioc, beans, bananas, and yams. Some wheat is also grown. Cattle are very numerous, and are valued mainly for their hides. Among the products of the forests the most important are hard-woods, dye-stuffs and drugs of various sorts, and caoutchouc or India-rubber.

26. The manufactures of Brazil are almost in their inception, being confined to cotton-weaving, tanning, and the production of goods of primary necessity. In the cities, however, most of the trades and handicrafts are carried on; but though the demand for machinery for sugar and other mills is very great, machine shops are few in number, and wherever they exist the presumption is that they are operated by Europeans.

27. Commerce, on the other hand, is very extensive, notwithstanding the illiberal policy of the government in excluding foreigners from the Amazon, in the valley of which the material of an indefinite trade is shut up. The principal articles of export are coffee, sugar, cotton, hides, cabinet and dye-woods, drugs, gums, India-rubber, and diamonds, and the imports consist chiefly of European manufactures and American provisions.

28. The quantities of the principal products of the country exported in the years 1843–4 and 1853–4 were as follows:

Products.	1843–4.	1853–4.	Products.	1843–4.	1853–4.
Coffee.....lbs	201,416,992	261,730,736	Rice.....lbs	11,913,120	6,512,320
Sugar..... "	181,853,552	256,510,048	Hides, salted..No	521,079	495,942
Cotton..... "	26,056,160	23,423,320	" dry.... "	799,509	531,693
Tobacco.. "	9,370,976	21,746,752	Rum.....gals	1,443,508	2,278,216

These figures show a material increase in the ten years included, except in rice and hides, and probably represent with approximate accuracy the progress of general industry.

29. The total value (in *thousands* of current milreas) of the commerce of Brazil with the leading commercial nations of the world, and the value of the imports and exports at the several sea-ports of the Empire is given in the subjoined table for the two periods above represented:

Foreign Ports.	Value of Exports. 1843–4.	Value of Exports. 1853–4.	Value of Imports. 1843–4.	Value of Imports. 1853–4.	Brazilian Ports.	Value of Exports. 1843–4.	Value of Exports. 1853–4.	Value of Imports. 1843–4.	Value of Imports. 1853–4.
Great Britain ...	5,694....	11,722.....	15,031....	24,581	Rio Janeiro ...	12,878....	20,363.....	16,757 ...	24,867
France	1,443....	3,321.....	3,767....	5,315	Bahia	3,407....	5,632.....	4,580....	6,590
United States ...	5,901....	11,725.....	3,537....	4,151	Pernambuco ..	3,153....	4,647.....	4,347....	6,866
Portugal	2,222....	1,621.....	2,359....	3,102	Maranhao	944....	1,293.....	1,422....	1,365
Hanse Towns...	1,723	2,849	1,385....	2,796	Para	533	2,858.....	630....	2,663
Rio de la Plata..	1,269....	1,816.....	931....	2,428	São Pedro	1,252....	2,494.....	1,757....	2,518
Other countries .	5,396....	6,974.....	1,944....	3,216	Other ports....	1,482....	2,742.....	360....	720

The total exports for 1843–4 amounted to 23,652,000 and in 1853–4 to 40,032,360, showing an increase of 69 per cent. in ten years, and the imports for the two periods amounted to 29,856,060 and 45,592,740 respectively, showing an increase of 52 per cent. The returns for 1855–6 exhibit a continued increase, the exports in that year having been valued at 59,504,742 and the imports at 52,996,474 current milreas.

30. Internal trade suffers for want of good roads, but of late years improvement has progressed, and the railroad has been introduced. Ship-building is carried on to a respectable extent, and numerous steamers have been launched at Rio and are employed in the coast and river trade. The slave trade is now absolutely abolished, and in September, 1850, a law was promulgated declaring it piracy. The number of Africans imported in the years 1842 and 1851 inclusive were—17,435, 19,095, 22,849, 19,453, 50,324, 50,172, 60,000, 54,000, 23,000, and 3,287. Free African and coolie labor is being introduced.

31. The Empire is a constitutional monarchy, hereditary in the male line of the reigning family. The emperor exercises his functions through a responsible ministry. The legislature, styled the general assembly, consists of a senate of 55 members, and a chamber of deputies of 112 members—the former elected for life, and the latter for four years. Representation is based on population. The judiciary is exercised by a number of district and provincial courts, the high court of appeal, and the supreme tribunal of justice. The provinces are in the immediate charge of presidents or governors, with provincial legislative bodies.

32. The great bulk of the national revenue is derived from duties on imports and exports, and from interior taxes. The amount (in current milreas) derived from each source in the years named has been as follows:

Years.	Imports.	Exports.	Interior.	Miscellaneous.	Total.
1836–7	7,926,000	2,611,000	2,462,000	1,830,000	14,831,000
1841–2	11,992,000	3,393,000	2,373,000	1,039,000	18,803,000
1846–7	16,511,000	4,454,000	4,672,000	1,126,000	26,764,000
1851–2	24,840,000	5,096,000	4,466,000	1,383,000	35,786,000
1856–7	23,521,000	4,082,000	5,130,000	1,664,000	34,348,000

The expenditures for 1856–7 were appropriated as follows—interior administration 5,312,539, justice 3,002,472, foreign affairs 588,720, navy 4,537,283, army 8,693,017, and finance 11,651,349—total 33,785,380 milreas. In the expenses of the finance department no less than 7,305,000 are applied for the interest and sinking fund of the national debt, which at the present time amounts to 158,186,000 milreas, made up of the following—foreign debt 51,741,000, internal 57,744,000, unfunded 451,000, treasury notes 1,566,000, and paper money 46,684,000. The foreign debt held in London is £5,824,200 sterling, which, for interest, claims annually £291,785, and for administration £138,352, or a total of £430,137.

33. The land force in 1856 consisted of 22,540 men of all arms, of which number 13,364 were infantry, 3,727 cavalry, and 3,582 artillery, the remainder being made up of the several officinal staffs, armorers, engineers, artificers, etc. Besides this force the national guard or militia numbers about 60,000 men, and each province has a well-equipped municipal guard or police force. The naval force of the Empire consisted (1856) of 34 sail and 16 steam vessels in commission; 2 sail vessels in ordinary and 7 sail vessels under construction; viz., *armed sail vessels*—1 frigate, 3 corvettes, 8 hermaphrodites, 7 brigs, and 15 smaller vessels; *steam vessels*—1 of 300 horse-power, 2 of 220, 2 of 150, 4 of 120, 1 of 80, 3 of 70, 1 of 40, and 2 of 25 horse-power; *vessels in ordinary*—1 frigate and 1 corvette; and *under construction*—1 frigate, 3 corvettes, and 3 schooners. The complement of the armed navy in the year named was 3,564 men and 305 guns.

34. In every town elementary schools are found, to which all citizens have free admission. There are two universities—one in São Paulo and the other in Pernambuco; that of São Paulo is held in the highest estimation. In all large towns there are professorships of Latin, Greek, English, French, philosophy, rhetoric, geometry, chemistry, botany, etc.; and printing presses are now common throughout the Empire.

35. The Roman Catholic is the established religion, but the exercise of all others is permitted. The hierarchy consists of the archbishop of Bahia, who is also metropolitan, and the bishops of Ceara, Cuiaba, Diamantina, Goyaz, Maranhao, Minas, Para, Pernambuco, São Paulo, Rio Grande do Sul, and Rio de Janeiro.

36. The public press of Brazil is one of the most respectable, well-written, and widely-circulated in South America. It consists of thirty-two publications, of which seven are issued at Rio, six at Pernambuco, and two at Bahia. The principal daily papers of Rio are El Jornal do Comercio, Diario do Rio, and Correio Mercantil, devoted chiefly to politics, which they treat in a liberal and spirited manner, and to foreign news, etc. One religious paper (the Courrier du Brazil) in French, and one in German; two or three literary, and one satirical (La Matraca—wooden rattle), are also issued at Rio. The others, devoted to local interests, are published in the provinces.

37. Rio de Janeiro, the capital, is a large city, in a beautiful bay of the Atlantic, in latitude 22° 53′ south, and is tolerably well built, generally in the European style. The bay is 60 or 70 miles in circuit, studded with islands, and opening to the sea by a deep entrance, scarcely a mile wide. It is strongly defended. The city is lighted with gas, and well supplied with water. A railroad extends hence to Petropolis, the royal residence. In the city and municipality there are 27,024 dwellings, and of the population 155,864 are free, and 110,602 slaves; 152,965 are males, and 113,501 females; and 154,093 are natives, and 112,373 foreigners. This is the chief port of Brazil, and its great coffee market. The merchants are chiefly foreigners, but most of the inhabitants are engaged in the different branches of commerce. Besides coffee, Rio Janeiro exports largely sugar, hides, rice, cotton, tobacco, and India-rubber. The imports consist principally of cotton goods, and next of linen, woolen, and silk



HARBOR OF RIO DE JANEIRO.

manufactures, wine, jewelry, ironware, flour, provisions, etc. In 1853–4 the total exports were valued at $20,363,940, and the imports at $24,867,540.

38. San Salvador or Bahia, in latitude 13° 5′ south, is a fine city, consisting of two towns, one built on the top of a hill, 600 feet above the sea, and the other on the shore of the point which forms the eastern entrance to the magnificent Bay of All Saints. The Cathedral, in the upper town, is considered the finest church in the Empire, and generally, with respect to its public buildings, Bahia ranks first among Brazilian cities. Its commerce is next in amount to that of Rio. Population 118,000. Pernambuco or Recife, in latitude 8° 3′ south, is composed of three towns—Recife, on a peninsula, and the most commercial part; Santo Antonio, on an island of the river Capibaribe, joined to Recife by a stone bridge, and Boa-Vista, on the continent. They are the seat of a great trade, and of 25,000 inhabitants. The harbor is formed by a recife, or reef of rocks, running parallel to the shore, and beating off the heavy sea that continually breaks upon it. Maranhao, on the west side of the island so called, on the northeast coast, is a flourishing commercial town of 36,000 inhabitants.

39. São Paulo, on the coast, southwest of Rio, is a city of 8,000 inhabitants, and its port of Santos, on the island of San Vicente, has a safe and good harbor, with considerable trade. Para, on the east side of the estuary of the Rio Para, is the place of export for a wide range of country drained by that river. Population 15,000. São Pedro, on the south coast, is also a place of large trade. The interior cities, though several are considerable places, and the centers of large commerce, are, as a general thing, comparatively insignificant to those specially referred to in the above remarks.

40. Brazil was discovered May 3d, 1500, by Pinçon, but was subsequently taken possession of by De Cabral. Various towns were early planted by the Portuguese, but not without great annoyance from the English, Dutch, and Spaniards. The Portuguese, however, still kept possession of the country, and notwithstanding the calamities it was subject to from these nations, continued to prosper.

41. In 1807, when Portugal was invaded by the French, the king fled to Brazil, and on the fall of Bonaparte he raised it to the dignity of a kingdom, assuming to himself the title of King of Portugal, Algarve, and Brazil. The revolution which took place in Portugal, in 1820, compelling the king to return to that country, he next year sailed for Lisbon, leaving Don Pedro, his eldest son, as regent.

42. In 1822 Don Pedro, in accordance with the wish of the people, declared Brazil to be a free and independent state, and himself assumed the title of emperor; and in 1825 Portugal acquiesced in the change. Don Pedro abdicated April 7th, 1831, in favor of the son, the present emperor; but the country was ruled by a regency until 1840.

[*Weights, Measures, and Moneys.*—Identical in series with those of Portugal; but somewhat different in values.

Weights.—The arratel or lb. of 16 oncas (= 459 grammes) = 1.01256 lb. avoird.; 32 lbs. = 1 arroba, and 4 arrobas = 1 quintal. Diamonds are weighed by the quilate, of which 140 = 1 onca. Gold and silver are weighed by the Portuguese marc, = 3,542 grains troy.

Measures.—*Length:* Covado of 2 pes or feet (= 685.8 millimetres) = 27.00049 inches, and vara (= 1,097 millimetres) = 43.18976 inches;—*capacity*—dry: alqueire = 1.10416 bushel; and—liquid: medida (= 2.9916 litres) = 0.78312 gallon, and 60 alqueires = 15 fanegas = 1 moyo.

Moneys.—Milrea of 1,000 reis: 1,000 milreis = 1 conto. The milrea is reckoned in depreciated paper money, varying in value, but now worth from 55 to 56 cents United States money. The principal gold coin (weight 221.4 grains troy, 917 fine) is the piece of 10,000 reis, valued at $8.74031, or old Brazilian piece of 6,400 reis; and silver the piece of 1,200 reis (weighing 416.6 grains troy, 900 fine) = the Spanish dollar or old Brazilian piece of 960 reis.]

REPUBLIC OF PERU.

1. Peru is situated between latitudes 3° 35′ and 21° 48′ south, and longitudes 68° 10′ and 81° 31′ west; and is bounded north by Ecuador, east by Brazil and Bolivia, south by the Bolivian province of Cobija, and southwest and west by the Pacific Ocean. The country varies in width, east and west, from 60 to 700 miles, and has an extreme length of 1,250 miles, with a coast-line extending from the Rio Tumbez to the Rio Loa, about 1,500 miles. The area is computed at 498,726 square miles.

2. This country exhibits great varieties of physical character; but from every point of view its grandest feature is the Cordillera of the Andes, which, seen from the coast, has the appearance of a vast wall, apparently impassable.

3. The region between the Andes and the Pacific Ocean has a width of less than 100 miles, nor is any large portion of it habitable. It is generally rugged, and covered with mountains and hills from 10,000 feet down to 500 feet in height, projecting in rapid descent from the Cordillera to the sea, and generally consisting of bare rock. It is only where streams force their way across this tract that verdure makes its appearance and cultivation becomes possible. But the streams from the mountains, though full and rapid above, generally sink in the dry sandy ground lower down, and seldom reach the sea; while most of them are only occasional torrents flowing during the rainy season of the highlands, and dry nine months in the year.

4. Above the maritime Cordillera, between the ridges of the Andes, nature assumes quite another aspect, and here is now the chief, as it was anciently the almost exclusive, seat of population.

5. Beyond or east of the mountains the country sinks into boundless plains, watered by

numberless and great rivers, and covered to a great extent with impenetrable forests. This region is but imperfectly known, and many ages will probably elapse before it becomes occupied by civilized man.

6. The Andes of Peru include the nearly extinct smoking volcano of Arequipa and numerous other lofty peaks, forming two ranges, between which is the table-land, naturally distributed into regions differing widely in character. The chief are the heights of Pasco and of Cuzco, and the valleys of the Mantaro or Jauja and of the Maranon.

7. The first of these lies at one of those points where the branches of the Andes unite, the ridges sinking into an elevated plain, which has here a general height of 14,000 feet. This region is traversed by ranges of hills from 500 to 1,000 feet high, and has everywhere a rugged and forbidding aspect, and a climate disagreeable and comfortless. Yet the veins of the precious metals with which the region abounds have attracted to it a comparatively dense population, and it has been more frequently visited by strangers than the smiling and luxuriant regions lower down.

8. The table-land of Cuzco, extending from the south frontier of the country to latitude 12° 30′ south, has a length of about 150 miles and a width of 100 miles. At the city of Cuzco, latitude 13° 30′, it has an absolute elevation of 11,380 feet, but sinks rapidly toward the north, so that at the banks of the Mantaro it is not probably more than 8,000 feet above the sea. On the heights of Pasco there is no cultivation whatever; but here, between the south and more elevated parts of Cuzco, where the quinoa (*chenopodium quinoa*) is cultivated, to the sugar plantations at its north, we find most of the grains and fruits of temperate climates in the greatest perfection.

9. The valley of the Mantaro adjoins the table-land of Pasco, descending rapidly south for about 100 miles, and resembles in general character the lower portions of Cuzco. It is, perhaps, the most populous part of Peru, and at the same time the least known to foreigners.

10. The valley of the Maranon, from latitude 10° to 5° south, is, for the first hundred miles, little more than a narrow defile, descending rapidly; it then becomes for 200 miles a wide and fertile valley, having a mean absolute height of 3,000 feet. The Pongo of Rentema, at its northern termination, is but 1,250 feet above the sea; and a great part of the valley has all the characteristics of the tropical regions.

11. On the table-land of Pasco lie at no great distance asunder the Lake of Lauricocha, whence issues the Maranon, the Lake of Chiquiacoba (13,200 feet above the sea), from which the Huallaga flows northeast, and the Lake of Quiluacocha, which gives birth to the San Juan, lower down called the Mantaro, and one of the chief tributaries of the Apurimac. These three rivers all unite some hundreds of miles lower down, greatly increased in magnitude, and together with the Ucayali, which rises farther south and takes a wide sweep to the east, form the grand but simple system of the waters of Peru.

12. The Maranon rises, as before stated, in the table-land of Pasco, and runs for 400 miles between the Cordilleras of the Andes; during the first 100 miles of its course, in a narrow rocky valley, it descends about 10,000 feet; thence to the Pongo of Rentema it flows about 250 miles with a fall of 1,800 feet. Within this distance it is navigated in canoes and balzas. Below the rapids at Tomependa, close to the Pongo of Rentema, the river flows northeast and then east for 150 miles till it descends the rapids seven miles in length, at the Pongo of Manseriche. At the foot of these rapids is the town of Borja, in Ecuador, whence it may be navigated downward in small vessels.

13. The Huallaga, on leaving the highlands, takes a tortuous course of 500 miles, collecting



BRIDGE OVER THE APURIMAC.

numberless small streams till it joins the Maranon in latitude 5° south and longitude 76° west. It flows for the most part between hills covered with dense forests; but for the last 100 miles it winds through level marshy plains.

14. The Ucayali is, after the Maranon, the greatest of the Peruvian rivers; at its junction, indeed, it is apparently the greater of the two. The Urubamba and Tambo, the latter uniting the Apurimac and Mantaro or Rio Jauja, join to form the Ucayali, which, just below the junction, descends a violent rapid called Vuelta del Diablo. It is supposed to be navigable for 500 miles, but its course through the plains is little known. Among its chief tributaries from the mountains is the Pachitea, which is also reported to be navigable a long way up, and which may in the future afford a convenient access to the central portion of the country.

15. Lake Titicaca, except that of Maracaybo, the largest lake in South America, is partly in Peru and partly in Bolivia. (*See* BOLIVIA.)

16. The very peculiar climate of the maritime region of Peru may probably be owing to the position of the mountains and the prevailing winds. On a portion of this coast no rain has fallen within the memory of man, and on most of it a shower is a remarkable phenomenon. From November to April the sky is cloudless, and the burning rays of an almost vertical sun would convert the country into an absolute desert if it were not that this is the rainy season in the higher regions, whence copious streams pour down to fertilize and beautify the valleys. These torrents soon dry up on the cessation of the rains; but then the sky along the coast becomes overcast, and the rays of the sun are intercepted by a thick mist which falls like a heavy dew, and freshens vegetation while it mitigates the heat. The cool oceanic currents and the streams of air descending from the Andes can, with their united influence only, mitigate agreeably the heat of the coast, which, on the sea-side, is often excessive. In Lima, 530 feet above the sea, the thermometer varies from 60° Fahr. in winter to 80° in summer. But local variations of climate, depending on currents from the Cordillera, are here very frequent and strongly marked. The same remark applies probably to the salubrity of the coast, which, in localities not far asunder, have very different climatic characteristics.

17. The perfectly rainless region of Peru terminates at the height of 400 feet above the sea. Thence to an elevation of 2,000 feet succeeds the zone of cultivated tropical plants—banana, sugar-cane, cotton, sweet potato, etc., and above this again, to the height of 10,000 feet, follows the region of the cereals. Here wheat, barley, maize, and potatoes and European fruit-trees are seen among indigenous trees, which lower down perish for want of moisture and higher up from excessive cold. From the upper limits of this zone to the height of 14,500 feet extends the domain of grasses, with a character wholly alpine, and available only for sheep pasture. Snow falls in storms at all times of the year, and these heights, though by no means uninhabited, offer perhaps the least agreeable home on the face of the earth. Still higher up, alpine plants and lichens continue to flourish to elevations in sunny aspects of perhaps nearly 17,000 feet.

18. The eastern slope of the Andes exhibits an important general change in the elements of climate. On the western slope the prevailing winds during nine months of the year are from the southwest, and the south wind predominates during the other three months. These winds are both cool and dry. But east of the Andes the regular equinoctial winds from the east come loaded with humidity, and, checked by the mountains, pour down copious and in some places perpetual rains. On the west side the native woods nowhere descend to the foot of the mountains; on the east side the tall forests cover the low plain, and ascend with hardly diminished magnificence to a height of 5,500 feet, where the tropical character of the woods ceases. The temperature on the east side is superior to that on the west, making a difference in the limits of the vegetable zones of 2,000 feet, and at the height of 3,000 to 4,000 feet the "ceja de la montana," or brow of the forest, as the Peruvians call it, presents the most charming spots on the earth, enjoying a delicious climate, matchless fertility, with forest and mountain scenes of incomparable grandeur.

19. If the coast enjoys a perpetual aerial calm, it is, on the other hand, peculiarly subject to subterranean convulsions. Earthquakes have frequently laid Lima in ruins, and experience shows that forty-five smart shocks may be expected there in a year. Desolating earthquakes have hitherto occurred twice in a century. The last took place in 1806; but that of 1746 was the most destructive. On that occasion the sea retired to a great distance; then suddenly rushing back overwhelmed the town of Callao, the port of Lima, the site of which appears to have sunk with the shock. Of its inhabitants, about 3,000, only 16 survived the catastrophe.

20. But a small part of the wide surface of Peru has been examined geologically. Red sandstone, frequent on the coast, is also the prevailing rock in the plains of the interior, where it is accompanied by vast deposits of rock-salt, the latter occupying in the valley of the Huallaga alone an area of 1,000 square miles. It occurs also on the coast, and is not wanting even on the heights of the Andes. Granite and porphyry appearing on the coast extend also to the highlands; but the prevailing rocks on the table-lands or sierras are trachite, augite, porphyry, and diorite. The sides of the valleys between Titicaca and Cuzco are formed chiefly of clay-slate. Round Arequipa and thence to Titicaca the soil is all volcanic, yet there is no active crater in the neighborhood, though the cone of Arequipa still emits smoke.

21. In the south of Peru, chiefly in the maritime province of Tarapaca, and in the neighborhood of Iquique, an extensive deposit of saltpeter and muriate of soda exists. The sandy region over which it extends (latitude 19° to 22° south) is a barren desert. In many parts the houses and inclosures for cattle are built of blocks of salt. Of the nitrate of soda the supply is inexhaustible, and this product now forms one of the great staples of export to foreign countries.

22. It is said that gold may be found in all the passes, and nearly all the rivers from the Andes wash down auriferous sands. The richest gold mines or diggings are about Huaylas and Tarma. Silver, also, which is the chief metallic production of Peru, is very widely distributed, and small mines of it are worked secretly in all parts of the country. But the chief silver mines are those of Hualgayoc, Hualanca, Pasco, Lucanas, and Huantajayo. Cerro de Pasco is hardly inferior in mineral wealth to Potosi. The town stands at the height of 13,673 feet above the sea, and the hill on which it stands is all hollowed out, and most of the mouths of the pits are within the houses of the miners. Quicksilver is chiefly found at Huancavelica, in the interior; and copper, lead, and iron are abundant at various points. But in a country where the cost and difficulties of carriage are so notorious, none but the most precious products can yield a profit. Coal has been discovered at the Cerro de Pasco, at an elevation of

14,700 feet. Brown coal is also found on the sandy deserts of the coast north of Arica; and in the province of Tarapaca lies a buried forest underneath the sand, the wood of which is neither charred nor petrified. It affords excellent fuel, and is much used in the preparation of nitrate of soda, the chief production of the region.

23. In botanical species, Peru is incomparably rich, owing to the various physical regions comprehended in it, each of which has its own flora. Western Peru, however, is poor in plants, especially trees, but in the eastern section the species are exceedingly numerous, and most of them are arborescent. The character of a tropical vegetation becomes more perfectly developed on descending the mountains, and in the plains the forests closely resemble those of equatorial Brazil.

24. On the higher parts of the eastern Andes are to be found plants (as the gentians) which are elsewhere rare in South America. On the west coast palms are hardly ever found wild. On the east side each of these kinds has many and varying representatives; and the tree ferns also are peculiar to the lower slopes and the plains. Among the characteristics of the eastern forests may be mentioned the prevalence of the cinchonæ, which occur nowhere else in such numbers and variety. From these forests Peru derives the cascarilla or Jesuit's bark from which quinine is extracted.

25. Tobacco, formerly monopolized by the crown, is now generally cultivated, and being excellent finds a ready market. The sea-board also produces excellent sugar and cotton in sufficient quantities not only for home consumption but also for export. Fruits are abundant —the banana, orange, pine-apple, papaya, chirimoya, palta, etc., as well as ordinary vegetables and grains, from the yam and yuca to barley and the oca, which latter grow at an elevation of even 13,000 feet. The vine is cultivated on the west coast merely for the production of brandy.

26. Extensive tracts may be found on the west side of Peru in which life seems to be wholly extinct, and not even insects are found in the sand; yet that region has animals peculiar to it, namely, a fox, a polecat, an otter, some opossums, and gigantic seals. The birds of western Peru are few, with the exception of sea-fowl, which inhabit the shores in countless multitudes. A few deer and wild swine, which attain a great size in the valley of Lima, are the chief mammals; iguanas and lizards are the chief reptiles. The llama is found only on the highlands, where the Indians still employ it as a beast of burden. The kindred species, the guanaco, the alpaca, and the vicuna, remain wild in the mountains. Above their haunts are to be found only marmots in the hollows, and the condor nestling in the highest rocks. The puma is the only animal inhabiting the forest region that braves the cold of the sierras.



THE LLAMA.

27. The eastern face of the Andes is as remarkable for its abundance as the west for its want of animal life. Parrots, which are scarcely known on the west, are here disagreeably numerous; and here also in the forest monkeys are innumerable. At the height of 4,000 feet is found the South American bear; while the larger animals, the tapir, sloth, ant-eater, armadillo, belong to the low forest. In the same region insects become numerous, and on the river banks are insupportable. Alligators swarm in the rivers, and in the inundated plains the boa-constrictor attains a terrific size.

28. Peru is divided into eleven departments and two littoral provinces having the organization of departments. The departments are divided into 61 provinces, the provinces into 625 districts, and these into parishes. The departments are as follows:

Departments, etc.	Area, sq. m.	Population (1852).	Capitals.
Amazonas	96,276	43,074	Chachapoyas.
Ancachs	23,928	219,145	Huaras.
Arequipa	36,117	119,336	Arequipa.
Ayacucho	32,829	132,921	Ayacucho.
Cuzco	72,124	349,718	Cuzco.
Huancavelica	14,284	79,117	Huancavelica.
Junin	85,388	22?,949	Cerro de Pasco.
Libertad	27,444	266,553	Trujillo.
Lima	24,288	250,801	LIMA.
Moquegua	39,198	61,432	Tacna.
Puno	25,918	285,662	Puno.
Provincia Littoral de Callao	216	8,458	Callao.
" " de Piura	20,766	76,382	Piura.
Total	498,726	2,115,493	

—the population in 1855 may be estimated at 2,250,000 souls.

29. Fully two thirds of the population is Indian, probably an eighth of European origin, and the rest colored people of mixed breed. Besides these a few negroes are found on the coasts. The Peruvian Indians—or those descended from the subjects of the Incas—are to be found chiefly in the highlands. They seldom descend to the east side of the Andes. In physical character they scarcely differ from the Indians of the eastern forests, to whom, however, they are superior in civilization. In Puno they have preserved in some degree their nationality. Their language is the Quichua, though toward the south the Aymara becomes prevalent. Large districts occur in which few understand Spanish, the Quichua being adopted even by the creoles. Only a few of their noble families still possess estates. In the wars of the revolution the Peruvian army was composed almost entirely of Indians, who fought well and endured fatigues which no European army would have encountered. By the laws of the Republic the Indian is on a level in political rights with the white man. The Peruvian creole is tall, but slender and feeble, and alike incapable of great physical or mental labor; and the creole females lose their bloom totally at an early age.



INDIAN GIRL.

30. Agriculture and the mines employ the great body of the people. Manufactures can scarcely be said to exist, and hence commerce supplies the chief wants of the people for clothing and the utensils and luxuries of life. Labor of every kind is in the hands of the Indians—they are, indeed, at once the farmers, miners, and manufacturers of the country. Though immense wealth has been derived from the mines of Peru, this branch of industry has never been carried on with the requisite energy, and many obstacles of a physical nature have rendered mining a difficult and precarious occupation. The production of silver since 1630 is estimated at 1,500 million dollars. The Lota mines are the chief source of coal. With regard to agriculture, it has had to contend against disadvantages destructive of progress—the excessive dryness of the coast region, the natural barrenness and coldness of the highlands, and the remoteness of the eastern plains, with the difficult means of internal communication. But still the country has a surplus of many commodities for export, as sugar, rice, etc., and other tropical staples which are grown near the coast. The mountain region supplies nothing but the precious metals that will bear the expenses of transportation. Otherwise the exports consist of nitrate of soda, wool, cinchona bark, hides, chinchilla skins, and chiefly of guano, which is extensively deposited on several islands near the coast.

31. In 1853 the value of the foreign commerce amounted to $25,968,197, of which sum $9,087,894 represented the imports, and $16,880,303 the exports. The distribution of these amounts was as follows:

Countries.	Imports.	Exports.	Countries.	Imports.	Exports.
Great Britain	$4,616,291	$8,818,755	United States	$586,024	$4,898,374
China	289,496	—	France	1,883,781	1,441,606
Chile	654,007	497,437	Hamburg	486,327	214,814
Spain	162,367	228,996	West Indies	—	264,242
Ecuador	196,828	—	Other	212,773	516,079

About 320,000 tons of guano, valued at $8,000,000, are exported annually, and in 1853 the quantity of nitrate of soda exported was 866,001 quintals. The merchant navy of Peru consists of 187 vessels, having a capacity of 25,228 tons. The ports open to foreign commerce are Paita, Lambayeque, Huanchaco, Callao, Islay, and Arica; and those for the exportation of domestic produce only are Tumbez, Pacasmayo, Casma, Huacho, Pisco, Chala, Ylo, and Iquique. Besides these there are 18 other ports open for the coasting trade.

32. Internal commerce and that with the neighboring states is considerable, but is much retarded in its development on account of the difficulties of locomotion, caused by the nature of the surface and want of good roads. Except on the table-lands, indeed, there are few roads of any sort, and mule carriage appears to be the sole means by which merchandise and travelers are moved. Railroads, however, have lately been constructed from the port of Arica to Tacna, and from Callao to Lima.



PERUVIAN MULETEER.

33. Peru is an integral republic, deriving its powers from the popular will as expressed in the constitution of 1839 and the subsequent amendments thereto. The powers delegated are divided into legislative, judicial, and executive, each independent of the other. The legislative power is vested in a congress composed of a senate and chamber of deputies, each department electing two senators and the provinces one deputy for every 20,000 inhabitants. Justice is administered by the supreme court at Lima and the superior courts of Lima, Cuzco, Arequipa, Trujillo, Ayacucho, and Puno. In the provinces are courts of first instance, and in the districts justices' courts. Besides these there are special commercial, mining, military, and other courts. Judges are appointed by the president, and are not removable without cause.

34. The chief executive power is vested in the president, who is elected for six years through electoral colleges. There is no vice-president, but the president of the executive council supplies the place of the president in case of the removal, inability, or death of that officer. The affairs of government are administered by the four secretaries—namely, of the interior, justice and religion, of foreign affairs and public instruction, of the army and navy, and of finance. The council of state is a consultative body, and is composed of the ministers and such senators as congress may nominate. The departments are governed politically by prefects, the provinces by sub-prefects, and the districts by governors. The land-forces of the government consist of about 10,000 men of all arms, and the naval forces of a frigate, two corvettes, two galliots, and three steamers. All citizens between 18 and 45 years of age are eligible for militia duty.

35. The public debt of Peru, domestic and foreign, amounted, on the 1st October, 1853, to $47,778,400. Of this sum $23,211,400 represented the domestic debt, and $23,627,000 the foreign debt, the remainder being balances due to Venezuela and the United States. The specifications are as follows:

Domestic, 6 per cent	$22,673,000	Foreign, 4½ per cent	$13,000,000	Venezuelan	$850,000
" 5 "	112,000	" 3 "	8,627,000	United States	90,000
" 4 "	426,400	Chilean, 3 "	2,000,000	(Not bearing interest.)	

The receipts into the treasury for 1855 were estimated at $8,995,000, namely, from customs $2,510,000, guano $5,970,000, and other sources $515,000. The expenses for the same year were estimated at $10,452,690, namely, ordinary expenditures $4,000,000, on account of the domestic debt and interest $4,620,000, and on account of the foreign debt and interest $1,832,690. The actual receipts from customs were $3,776,814, and from the sales of guano $8,261,072. The coinage at the national mint in 1855 amounted to $2,196,371, of which $1,546,196 was in silver pieces of 5 c. to 100 c., and $650,175 in gold condors ($10) and half condors.

36. The Chincha Islands are the chief sources of the guano for which Peru is so famous. They are situated off the coast of Pisco. These islands are seldom if ever visited by rains. The estimated quantity of guano on these islands is stated at 12,380,102 tons, viz., on the north island 4,189,477, on the middle island 2,505,948, and on the south island 5,684,677 tons.

37. Public education in Peru, except in the larger towns, is scarcely known, and education generally is in a very low condition. In the interior, men qualified to fill public offices by being able to read and write are not always to be found. In the capitals of departments there

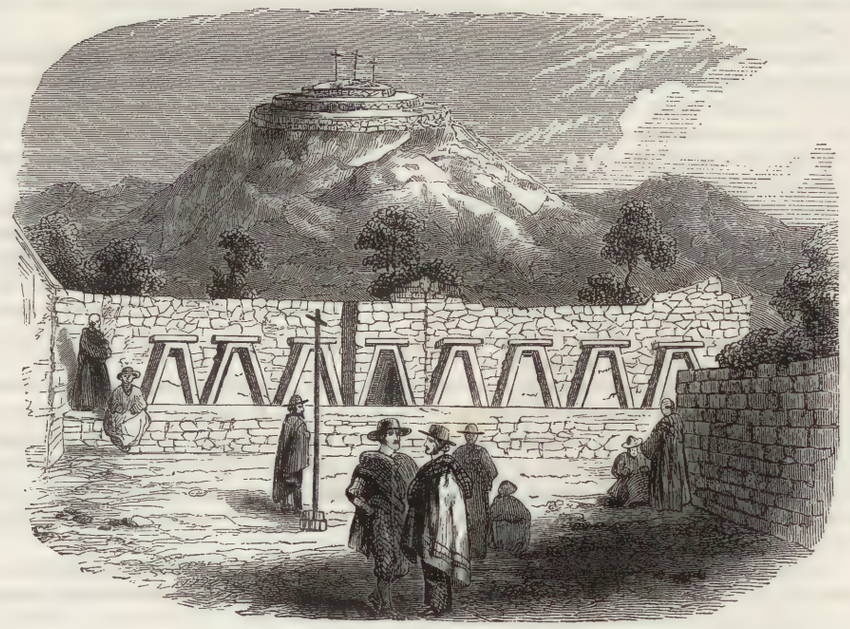
are usually high schools or colleges, and there are many good private establishments in all populated districts. The University of San Carlos, in Lima, established in 1570, is the most ancient of American universities, and has a respectable staff of professors and a library of 26,000 volumes, with a museum of Peruvian antiquities and natural history. The capital also contains schools of law, medicine, divinity, etc. The dominant religion is the Roman Catholic; but a fair toleration is granted to other churches. The hierarchy consists of the archbishop of Lima and the bishops of Cuzco, Arequipa, Trujillo, Huamanga, and Chachapoyas, and in all the country there are about 640 curacies. Convents and monasteries are numerous; and these with the church generally are proprietors of immense tracts of land in every part of the country.

38. Peru has 27 public prints, circulating annually 2,028,000 copies, or one copy to 111 inhabitants. Only two of these are of general importance—"El Commercio" and "El Heraldo," both issued at Lima daily. All other Peruvian issues are only of local interest and very limited in circulation.

39. Peru contains 32 cities, 74 towns, and 1,558 pueblos or villages. The principal cities are—Lima, Arequipa, and Cuzco. Lima, the capital, is situate at the foot of granitic hills on both banks of the Rimac, and the two parts are connected by a handsome stone bridge of six arches and 530 feet long. Latitude 12° 3′ south, and longitude 77° 6′ west. The larger division is on the left bank, and is inclosed on all sides, except on the north, on which is an agreeable alameda, by a brick wall 18 to 20 feet high, with nine gates; the smaller, or suburb San Lazaro, is backed by hills having only two openings for ingress or egress. The periphery of the city is nearly ten miles; and on the whole, although decay is frequently evidenced, Lima is a handsome place. The streets are equidistant, each at right angles, and have an average breadth of 34 feet. Those following the length of the city, east to west, have each a deep stream of water running through their center, and these are crossed by numerous bridges. The grand plaza is the central point of business. This is a quadrangle, each side of which measures 510 feet, and in the center is a magnificent fountain. On the north side stand the palace and offices of government, on the east the archbishop's palace and cathedral, and on the west the senate-house, town-hall, etc. The hall of the congress, the jail, and the old palace of the inquisition stand on the Plazuela de la Independence. Among the churches and convents a few only are deserving of notice—the cathedral is the most remarkable; it is richly decorated within, and beneath its grand altar lie the remains of Pizarro. The convent of San Francisco is the largest of the monastic establishments. Among the other churches and convents of note are Santo Domingo, San Pedro, and La Merced. Besides the cathedral, Lima contains five other parish churches, 12 attached to convents, 13 to monasteries, and 22 chapels—in all 53 places of worship. Monasteries and convents, at one time very numerous, have to a great extent been suppressed. The University is the oldest in America, and was formerly of great repute. There are also four special colleges, and for ordinary education four Latin and about 40 primary schools, with numerous private schools. Lima has also a foundling hospital, two lunatic asylums, and a number of hospitals for the sick and destitute. The places of public amusement are three alamedas or promenades—the Vieja or old Alameda, the Alameda de Acho (on the banks of the river, containing a bull-ring capable of accommodating 12,000 persons), and the Portada de Callao; two theaters and an amphitheater for cock-fighting, and several small saloons for dancing. The manufactures of Lima are of limited extent, consisting principally of gold lace and fringes, glass, cotton cloth, chocolate, paper, etc., but nearly all the goods exposed in the shops are foreign. Mechanical employments are numerous. The foreign trade of the city is carried on through Callao, seven miles west—the two being connected by a railroad. The climate is very equable, but enervating—the temperature ranges between 60° and 65° in winter to 80° and 85° in summer. Rain is of exceedingly rare occurrence, and thunder and lightning are unknown. But Lima has a terrible scourge in its earthquakes, the most destructive of which occurred in 1746, and at the same time Callao was submerged by a huge wave, and its inhabitants (about 3,000) suddenly swept away. Lima was founded by Pizarro in 1535, and since 1537 it has been the seat of the viceroys or of the republican governors. Population about 100,000. Callao is situate at the mouth of the Rimac, and is the principal sea-port of the country, with a large and increasing trade. The arrivals average 700 vessels, or 200,000 tons annually. Its roadstead is capacious, safe, free from rocks, and seldom disturbed by storms. At low tide the ruins of the old town are still visible under the water. Population 6,000.

40. Arequipa is finely situated on the plain of Quilca, on the Rio Chila, and 12 miles west of the volcano of the same name. Latitude 16° 30′, and longitude 72° 20′—elevation 7,850 feet. It enjoys a delightful climate, and is esteemed one of the best built and most beautiful towns of South America. It has a plaza ornamented with an elegant bronze fountain, a cathedral, several churches, three nunneries, and six convents, a college, and a hospital. The houses are of stone and one story high, with thick walls and vaulted roofs, to resist the effects of earthquakes, which are here frequent. The manufactures of the city consist of woolen and cotton stuffs and gold and silver tissue, and it has an active and flourishing trade. In the vicinity are several gold and silver mines. Population 36,800. Islay, the port of Arequipa, is distant 50 miles south-southwest of the city. The port is formed chiefly by a few straggling islets, and has little capacity. The town is situated on the west side of a hill sloping toward the anchorage, and contains about 1,500 inhabitants. From 18,000 to 20,000 tons of shipping are entered annually.

41. Cuzco, the most ancient city of the Republic, and the former seat of the empire of the Incas, is situate in a wide valley between the rivers Apurimac and Urubamba. Latitude 13° 31′, and longitude 72° 4′—elevation 11,300 feet. The houses are of stone, covered with red tiles, and are of fine proportions, many of them built in the ancient Peruvian style. Among the principal architectural remains of its ancient grandeur are the fortress, the cathedral, and the convents of San Augustin and La Merced. Other objects of interest are the baths, the ruins of a large stoneway, said to have reached to Lima, 400 miles distant, and the ruins of immense subterranean passages, which led from the fortress to the palaces of the Inca. Cuzco has still a number of churches and convents, with several monasteries, collegiate schools, and a university. The inhabitants (about 44,600) manufacture cotton and woolen goods, leather and parchment, and excel in embroidery, carving, painting, and sculpture. According to tradition, Cuzco was founded by Manco Capac, the first Inca, in 1043. In 1534 it was taken by Pizarro, and at that period was a grand and magnificent city. Its streets were wide and straight, and its palaces and temples, the latter including the famous Temple of



PALACE OF MANCO CAPAC.

the Sun, richly adorned with ornaments of gold and silver. While in possession of Pizarro it was besieged by the whole Peruvian force, and a great part of it destroyed.

42. Tacna, on the river of the same name, is the commercial depôt for the south mountain districts and the greater part of Bolivia. Its port is Arica, 25 miles southwest, with which it is connected by railroad. From this port the products of the celebrated mines of Potosi were shipped; but its trade is now comparatively insignificant. The port is small, and landing difficult on account of the great surf, and goods have to be taken to and from the shipping in balzas. In front of the roads lies the island of Guano. Population 10,000.

43. Iquique, about 120 miles south, has a large trade in niter. Puno is a flourishing town of 8,500 inhabitants on the Bay of Puno, a branch of Lake Titicaca, and was once famous as a mining center. Ayacucho or Huamango is situate on a tributary of the Mantaro, and contains 16,000 to 18,000 inhabitants. It is a fine town, and was founded as a station between Cuzco and Lima. Near it was fought the celebrated battle which terminated the Spanish regimé in Peru. Huancavelica is situate in a beautiful Andine valley, and is surrounded by a rich mining region. Population 5,000. Cerro de Pasco, the principal mining town of the country, is 140 miles northeast of Lima. Its population fluctuates, according to the state of the mines, from 12,000 to 16,000. The neighboring country is literally honey-combed with shafts. Trujillo (population 6,300), about a mile and a half from the ocean, occupies the southwest side of a granitic mountain, and is surrounded with mud walls flanked with bastions. Latitude 8° 7′ 30″, and longitude 79° 9′. Its port is at Huanchaco, eight or nine miles northwest. Piura, on the river of the same name, is a thriving town of 12,000 inhabitants, and has a considerable trade. Payta, between Sechura Bay and Cape Blanco, has the best harbor on this coast, and is much frequented. The town contains about 5,000 inhabitants.

44. Peru was the greatest and most civilized of the South American states at the period of the discovery of the New World. When wrested from the Incas by the Spaniards, in 1532, its dominions extended along the Andes through twenty-eight (latitude 2° north to 26° south) degrees. In 1718 the province of Quito was separated from Peru and annexed to New Granada, and in 1788 the provinces of Potosi, Charcas, Chiquitos, La Plata, and Paraguay were withdrawn to form the viceroyalty of Buenos Ayres. For nearly 300 years it remained a colony of Spain, and it was the last of the Spanish American colonies to separate from the mother country.

45. In 1821 a patriot force of Chileans and Buenos Ayreans, under General San Martin, crossed the Andes, and after a succession of engagements obliged the Spanish forces to retire into the interior. The independence of the country was proclaimed on the 28th July, 1821. The contest, however, did not here terminate, but was obstinately continued until the decisive battle of Ayacucho, in 1824, which was soon afterward followed by the final expulsion of the Spaniards.

46. The limits of the Republic remained for the most part unchanged by the revolution. In 1836 the Republic, harassed by contending factions, solicited the aid of Santa Cruz, president of Bolivia, who came with an army and succeeded, after a series of sanguinary actions, in tranquilizing the country; and at the same time divided Peru and formed a confederation of Bolivia and North and South Peru, himself being proclaimed supreme protector. This state of matters continued until 1839, when, in consequence of a bloody battle fought at Yungay, Santa Cruz was driven out of the country and the confederation brought to a close, and both countries—Bolivia and Peru—returned to their previous limits and forms of government.

47. Since this event the country has been more settled and free from revolt; yet this can only be said comparatively, for, with the exception of Castilla, who was president from 1845 to 1851, no chief magistrate has completed his constitutional term of office. Echenique, who succeeded him, was driven from the country in 1855, and Castilla again became the favored political chief. These matters, however, are of small account, and appear to create but little disturbance to the material economy of the country, their effects being scarcely perceptible beyond the limits of localities.

[*Weights, Measures, and Moneys.*—Identical in denominations with those of Spain, and generally of the same values, with local variations.

The "peso duro" is now coined at the rate of 10 to the marc, 900 fine, $1 = $1 16 United States currency.

The French metrical system is partially used.]

REPUBLIC OF BOLIVIA.

1. Bolivia is situated between the latitudes 10° 20′ and 25° 40′ south, and longitudes 57° 35′ and 70° 30′ west; and is bounded on the north and east by Brazil, on the south by Argentina and Chile, and on the west by the Pacific Ocean and Peru.

2. The greatest length of the country is near the 18th meridian, where it measures about 1,000 miles, and its greatest width, north and south, is about 760 miles. The periphery measures about 4,200 miles, and of this only 250 or 260 miles face on the sea. Within these limits the area is estimated at 473,298 square miles.

3. Though nearly the whole of Bolivia is situated within the tropics, perhaps not more than two thirds of its surface has a tropical climate. The remainder is occupied by high mountain ranges, table-lands of great elevation, high valleys, and widely extended slopes. This mountain portion of Bolivia belongs to the great range of the Andes.

4. Where the Andes, running south to north, enter Bolivia, they send off, about 24° north latitude, a lateral branch to the east, which extends to a great distance, and separates the affluents of the Vermejo from those of the Pilcomayo, both of which fall into the Paraguay. This lateral range, which constitutes the southern boundary of Bolivia, does not rise to a very great height, but is extremely rugged and barren.

5. The principal chain of the Andes here runs nearly south and north, and contains some peaks which rise above the snow-line. The Nevado de Chorolque (21° 30′) rises to 16,990 feet. Up to this mountain the Andes form a single and undivided range from the southern boundary of Chile; but to the north of it there is an extensive mountain-knot called the Alturas de los Lipez (19° 30′), and the range divides into two great longitudinal ridges which run nearly parallel, and bound an immense inter-alpine valley or table-land called the valley of the Desaguadero, which includes the great Lake of Titicaca. The western ridge, called the Western Cordillera, continues, as far as it lies within the boundaries of Bolivia, a due northern course, and contains, near the boundary line, several snow-capped peaks, of which the highest are Sahama (18°), 22,350 feet, and Gualatièri (18° 23′), which rises 21,960 feet.

6. The eastern ridge or Cordillera Real separates from the mountain-knot north of Porco (19° 50′) and of Potosi (19° 38′). The metalliferous mountains which surround Porco may be considered as its southern extremity, and the Cerro de Potosi belongs to it. From this point the Cordillera runs north, inclining a little to the west, to the Nevado de Illimani (16° 40′). Between Potosi and this summit the highest part of the range attains an elevation of 16,037 feet. The Illimani forms a serrated ridge rising to the height of 21,181 feet, or about 4,600 feet above the snow-line. From this point the range continues northwest, and forms an almost continuous line of snowy mountains until it reaches the ridge called the Andes of San Juan del Oro and of Vilcanoti, which, between 14° and 15°, extend nearly east and west, and again connect the two ranges of the Andes. In this portion of the eastern Cordillera, in latitude 16° 10′, is the Nevado de Sorata, 21,250 feet high. Both chains of mountains, with the intermediate valley, occupy a breadth of upward of 230 miles, to the north of 18°; but to the south of that parallel they are upward of 300 miles in width. The mean height of the eastern chain is 13,500 feet, and of the western chain 14,890 feet; while the height of the highest summits or culminating points is—in the eastern chain 21,250 feet, and in the western 22,350 feet. "Consequently the ratio of the height of the ridge to that of the culminating point is, in the eastern chain, as 1 : 1.57, and in the western chain as 1 : 54. This ratio, which is as it were the measure of the subterranean elevating force, is very similar to that which exists in the Pyrenees (= 1 : 43), but very different from the Alps, where the mean height of the passes is less as compared with Mont Blanc (= 1 : 2.09)."—*Burghaus* and *Humboldt.*

7. The valley of the Desaguadero, which lies between the two ranges, with a mean elevation of 13,000 feet, runs, in its southern portion, nearly parallel to the meridian; but north of 17° it forms an angle of almost 35 degrees with that line, running very nearly northwest by north and southeast by south. Not having any outlet toward the sea, the streams which descend into it are either lost in the sandy soil or empty into Lake Titicaca at its northern



LAKE TITICACA.

extremity. This lake, the largest in South America, covers 4,600 square miles, and its surface is 12,844 feet above the Pacific. In some places its ascertained depth is 120 fathoms, but in many parts the depth is much greater. It contains numerous small islands. It is remarkable that the watershed of the eastern part of the valley, and, as it would seem, also of the west part, is not formed by the high ranges, but by two low lateral ridges, distant from 20 to 30 miles from the lake, and generally rising from 500 to 1,000 feet above its surface. The waters collected between these lateral ridges and the high mountain ranges descend eastward to the plains traversed by the Madeira and its upper branches, and westward to the sea. The only outlet of the lake is the Desaguadero, which conveys its waters into the Lake Aullagus, which itself has no outlet. The course of this outlet may be about 180 miles. The climate of the valley is very moderate, and being at the elevation of 13,000 feet, assimilates that of the temperate zone. There are no trees in the valley, but the lower districts near the great lake, and where the land is not cultivated, are covered with the most beautiful green turf. Cultivation is limited—wheat, rye, and barley do not ripen; but plantations of quinoa are extensive, and also of potatoes, which are found growing wild in some more elevated places. There are no peculiar seasons for sowing or harvest, and the natives are continually occupied either in performing the one or the other operation.

8. The country between the ridges and high ranges contains, for the most part, undulating plains covered with coarse grass, on which numerous herds of llamas are fed. Here also the guanacos, alpacas, and vicunas feed in a wild state. Besides these no wild animals are observed in the valley except a peculiar kind of chinchilla and the lagostomus, which in some places has so burrowed the soil as to render traveling on horseback unsafe. The lake abounds in fish, and numerous birds visit it. The condor is frequently seen in the mountains. Among the spontaneous plants the rushes which grow along the banks of the lake deserve notice, as the entire want of trees has compelled the natives to apply them to nearly as many uses as the bamboo is applied in India. With these they build their huts, and make boats and sails with which they navigate the lake; mats made of them are the bed of the poor, and serve in the houses of the rich for carpets. From this valley six mountain passes traverse the western Cordillera to the Pacific Ocean. Their highest points rise nearly 15,000 feet above the sea, and consequently are not inferior to the mountain passes of the Himalaya in elevation. The ascent to these passes from the valley is only 2,000 feet, and the slope is gentle, but the descent to the sea is extremely rapid; and from the highest point of the range, from its proximity to the coast, extremely abrupt.

9. That portion of Bolivia which extends between the Andes and the Pacific, in length 250 miles and in breadth about 60 miles, is known by the name of Atacama. It is for the most part a desert waste, but there is fertile land along the narrow valleys and river courses. The coast about the Bahia de Nuestra Señora is low and rugged; from thence to Jara Head it runs in a direct line for 52 miles, the shore being steep and rocky, and backed with hills 2,000 to 2,500 feet high; and farther north are the spacious bays of Moreno and Mexillones, both affording anchorage. Here, however, the shore is steep, waterless, and woodless. Thirty miles north is Cobija Bay, the only port of the Republic. On this bay is the town of Puerto de la Mar. Still farther north are several shallow bays with rocky points; and about 10 miles north of Algodon Bay is Cape San Francisco, on which is an extensive bed of guano, which has been largely worked. From this point the coast continues north to the gully of the Rio Loa, which forms the boundary toward Peru.

10. The greatest part of Bolivia, however, is situated east of the Andes, and this may be divided into the mountainous districts and the plains. The mountain district extends along the eastern side of the great range, but is not of great extent to the north of 17° 40′, the slopes in that direction being steep, and the branches sent off extend only a short distance eastward. At this point a range detaches itself from the Cordillera and runs generally east for upward of 200 miles. This branch rises, near Cochabamba, above the line of perpetual snow, in a pointed peak called the Nevado de Tiniara; and farther eastward it gradually declines on or near the banks of the Rio Guapai or Grande at no great distance west of the town of Santa Cruz. Between this ridge and that forming the boundary toward the Argentine Confederation the whole country is mountainous.

11. The western border of this mountain region may be fixed as 63° west. It is traversed by many lateral ridges, which are offsets from the great chain of the Andes, and form extensive valleys, which, from their varying elevation, are alike suited for tropical and extra-tropical productions, and many travelers have considered these valleys as the most fertile and the most beautiful parts of the continent. Here the slopes of the mountains are generally covered with fir trees to a great height. In the southern parts of the region, however, the valleys are narrower, and the ranges which inclose them are without wood and nearly without vegetation.

12. The country east and northeast of the mountain region, or from the banks of the Pilcomayo and the Argentine frontier to the junction of the Mamore and Beni, is one extensive plain, broken only by a few isolated ranges of hills. In the southern part of this plain lies the watershed between the affluents of the Amazon and those of the Parana; but it does not appear to rise to any great elevation. The plain is principally watered by the Beni, the Mamore, and the Ubahy, which in the rainy season, from October to April, inundate the country along their banks to a great extent. In many places there are lakes, and though none of them are very large, the exhalations, united with those from the inundations, render the climate excessively humid, and the heat being great almost the year round, the unhealthiness of the climate is commensurately enhanced. This part of the country, though by far the most fertile, has consequently been abandoned to the wilderness and the native tribes. Immense forests cover nearly the whole of these plains.

13. With the exception of the small rivers Loa and Salado, no rivers worthy the name descend from the western slope of the Andes; but no part of America has a greater abundance of water than the region to the east of the mountains. The rivers of the latter region are among the most distant tributaries of the Amazon and Parana. The Cordillera Real contains the sources of the greatest of the tributaries of the Amazon—the Madeira. This large river is formed by the junction of the two considerable streams, the Beni and Mamore, which unite between 10° and 11° south latitude. The upper branches of the Beni are the Caca, Chuqueapo, and Quetoto, the last of which rises in the Sierra de la Santa Cruz. The Mamore rises under the name of Cochabamba in the western extremity of the valley which bears the same name. It first runs east by south, and afterward due east, when, being swelled by many streams, it assumes the name of Rio Grande; and then makes a very large semicircular sweep, by which it arrives at the town of Santa Cruz, whence it runs northwest, and after uniting with the Chaparé, at about 16° 30′, receives the name of Mamore, and by degrees

changes its northwest course to a north one. Between 11° and 12° it receives the large river Guapore or Itanez from Brazil, and after the junction continues its northern course till it meets the Beni, near the northeast angle of Bolivia, and from this point the united rivers take the name of Madeira. The Ubahy, a large river east of the Mamore, and nearly parallel to it, rises in a lake called Laguna Grande, in Chuquisaca, and, flowing north, unites with the Guapore before it joins the Mamore.

14. The waters which descend from the eastern declivities of the Andes south of 18° go to the Pilcomayo, one of the principal branches of the Paraguay. The Pilcomayo itself rises in the southern declivity of the Alturas de los Lipez, and running generally due east is soon increased by numerous streams, some of which are considerable, as the San Juan, Paspaya, and Cachymayo, the latter traversing the beautiful valley of Chuquisaca. After the junction of the Cachymayo, the Pilcomayo continues its eastern course for about 100 miles, when, turning suddenly to the south, it enters the desert called Gran Chaco, and leaves the territories of Bolivia.

15. The climate of the different districts has already been alluded to. Rain never falls on the coast along the Pacific. In the valley of the Desaguadero, in the mountain region, and in the eastern plains, the summer is the rainy season; but the rain is continual only in the plains. The mountains are subject to tremendous hail-storms, and thunder-storms are peculiarly severe in these elevated regions. Earthquakes are very common along the coast, but less so in the mountains; in the plains they have never been observed.

16. The productions of the several districts are entirely distinct: on the coast, Indian corn is the only cereal, but excellent fruits grow, especially figs, olives, melons, etc., and there are plantations of cotton, sugar-cane, and arrow-root. The productions of the valley of the Desaguadero are scanty, and have been already noticed. The other portions of the country, especially the beautiful vales watered by the Cochabamba and Cachymayo, are more fertile; and as the levels which occur along their banks are at different elevations above the sea, they abound in all the fruits, grains, and other agricultural products common to tropical as well as temperate climates. Among the spontaneous productions are cocoa, sarsaparilla, vanilla, copaiba, and caoutchouc. The mighty forests which line the rivers abound in the finest timber, and in trees that distill aromatic and medicinal gums. Cotton, rice, tobacco, indigo, etc., are cultivated abundantly east of the Andes; and throughout the valleys, below the level of 8,000 feet, vast quantities of the coca (*coca erythroxylon*) are grown. This plant grows wild, but it is also largely cultivated, the dried leaves being employed almost universally by the Indians as a narcotic.

17. Besides the animals peculiar to the valley of the Desaguadero, there are the tapir, the jaguar, the leopard, six or seven sorts of monkeys, and several amphibious creatures. For sheep the climate is too tropical; but great herds of horned cattle find abundant pasturage on the banks of the rivers and in the plains. Horses, asses, and mules are also numerous. Among the birds have been noticed many different kinds of parrots, several species of turkeys, and a multitude of beautiful singing birds, as the thrush, the whistler, and the maltico, remarkable for its plumage and the sweetness of its note. All the rivers, but especially those of the plains, abound in fish.

18. Gold is found in abundance in many places, but especially on the eastern declivity of the eastern Cordillera, where it is washed down by the rivers which run between the slate mountains in narrow ravines. All the waters descending from this range which fall into the Beni or its branches carry down gold sand, but more particularly the small river Tipuani, which falls into the Mapiri or Cuca. The mines of Potosi have long been considered as the richest in the world for their production of silver, but they are now little worked, which is also the case with other silver mines. Copper is also abundant; at Corucuero, a small place about 70 miles from La Paz, enormous masses of native copper are found crystallized in the form of perfect cubes; but this ore, though it is said to contain seven eighths of pure copper, is of scarcely any use, being found in very high and almost inaccessible mountains, and at a great distance from the coast. Besides these metals there are ores of lead and tin, and mines of sulphur, saltpeter, and salt.



POTOSI, IN THE ANDES.

19. Bolivia for administrative purposes is divided into seven departments, and these again into provinces, and besides these there are two provinces (Cobija and Tarija), which in respect to local government are in the footing of departments. The following table exhibits the extent and population of the divisions referred to, and also the names of the chief towns of the departments and provinces:

Departments, etc.	Area, sq. m.	Population (1855).	Names of Provinces and Chief Towns.
Chuquisaca	29,188	245,000	CHUQUISACA, Cinti or Zinti, Yamparaes, Tomina.
La Paz	36,418	366,000	*La Paz de Ayacucho*, Pacajes, Sicasica, Omasuyos.
Potosi	37,227	310,000	*Potosi*, Lipes, Porco, Chayanta, Chichas.
Cochabamba	31,624	316,000	*Cochabamba*, Sacaba, Tapacari, Arque, Clisa, Misque.
Oruro	25,842	132,000	*Oruro*, Poopo, Carangas.
Santa Cruz	136,235	79,000	*Santa Cruz de la Sierra*, Valle Grande, Chiquitos.
Beni	112,482	59,000	*Cuopolican* or Apolobamba, Moxos, Yuracares.
Cobija with Atacama	33,069	32,000	*Cobija*.
Tarija	31,218	74,000	*Tarija*.
Total	473,298	1,613,000	

Two of the provinces, Chiquitos, in the department of Santa Cruz, and Moxos, in that of Beni, are so important on account of their magnitude—forming as they do more than one half of the whole Bolivian territory—their great natural capabilities, and the civilization partially infused among their natives by the Jesuit missionaries, as to deserve special mention.

20. The population consists of aborigines, which constitute about three fourths of the whole, and of people of foreign extraction, chiefly descendants of Spaniards, and mestizoes; the latter distinguished into *cholos*, uniting European and Indian blood, and *zamboes*, proceeding from European and negro parents. People of pure African blood are few in number. The indigenous inhabitants of the highlands near Titicaca are the Aymarus; while to the north and east dwell the Quichuas, with whom the former were united under the Incas. These two nations speak distinct though cognate languages. Numerous monuments of the national prosperity and civilization of the Aymarus still remain; ancient villages, truncated obelisks, and well-built tombs containing the mummies of whole families, etc., are strewn thickly over the country, and seem to indicate the former existence of a considerable population. The Aymarus are industrious, intelligent, and gentle; have adopted Christianity, and prefer a pastoral life. The Quichuas, on the east side of the Cordilleras, do not differ much from the Aymarus. In the provinces of Moxos and Chiquitos there are remnants of perhaps twenty nations, speaking different languages. The descendants of the Spaniards are most numerous in the mining districts and in the valleys of Cochabamba and Cachypilco; less numerous in the valley of the Desaguadero, and their number in the plains is very small. The negro population is most numerous on the coast. The great bulk of the population is found in the valleys: other parts consist of barren deserts; while others, though fertile, are not cultivated, and are nearly uninhabited. The total population, including uncivilized Indians, is estimated at 2,300,000.



DOMED HOUSES OF THE AYMARUS.

21. The national industry of Bolivia is alike crippled by the want of good roads and outlets by sea. Under such circumstances industry must be local, and each locality of necessity the producer of its own supplies. Hence we find numerous but no large establishments in the country. The manufactures of cotton are the most extensive; the better kinds are made in Oropesa; and in many districts the Indians make great quantities of coarse goods. Next to these are the woolens made of the hair of the llama and alpaca, the coarser kinds of which, called *hanascas*, are used by the lower classes for dress and likewise for blankets—the finer sorts, called *cambos*, are embroidered with great care and used as carpets by the rich. The best are made at La Paz. Tanneries are also numerous. At San Francisco de Atacama very fine hats are made of vicuna wool, and at Oropesa glass is manufactured; while in some towns in the neighborhood of the mines they make vessels of silver-ware, which are not without elegance.

22. The great bulk of the population, however, is agricultural, raising at various elevations the staples of each; and numbers are employed in the rearing of cattle and other livestock. Agricultural operations are almost wholly performed by the Indians, who also make many articles of household use. Mining as a profession has greatly declined, and the rich mines of Potosi, once the wonder of the world, are now almost deserted. Gold is collected only in the rivers flowing from the eastern Andes. This decline is owing chiefly to the difficulty of obtaining machinery.

23. The interchangeable products of the country are insignificant; cotton is grown, but is mostly made up in the country; and the products of animals are too bulky to repay the expenses of carriage to the coast. The exports are, therefore, nearly altogether limited to the precious metals. Few foreign commodities are imported, and these consist chiefly of iron-ware and a few articles of finery, as silks, etc., and even this small external commerce is carried on principally through Peru by way of the ports of Tacna and Arica; the one port of Bolivia, Cobija, although a free port, being accessible only through rugged passes and by a single mountain road. The rivers flowing to the Amazon and Parana, however, were opened to commerce in 1852; but of this fact no advantage has been made, nor for many years can Bolivia expect to reap any benefit from the concession. The lower Amazon is still closed by Brazil; and the countries nearer the sea on the Parana can supply the same material to commerce as that produced in Bolivia.

24. Bolivia is nominally a republic; and is governed by an elective legislature and executive. The legislature consists of three branches—a senate, tribunes, and censors. The president (formerly chosen for life) is elected for six years. The judiciary is independent. The whole male adult population is eligible to office; but elections are made through electoral colleges. The army in 1853 consisted of—artillery (22 guns) 250 men, infantry 2,400 men, and cavalry 1,500 men—total 5,150 men.

25. The revenue of the government in 1853 was stated at $1,976,217, and the expenditures at $1,738,744. The national debt proper amounts to $2,181,216 at six per cent., to which must be added interest since 1847. There are also outstanding treasury bonds issued 1847–9 amounting to $2,654,948, but these do not bear interest. It is supposed, however, that these sums do not cover the whole amount of debt.

26. For ecclesiastical purposes the country is divided into the dioceses of Cochabamba and Santa Cruz de la Sierra. The whole population profess the Roman Catholic religion; but religious toleration is secured by the constitution. The same instrument also makes ample provision for personal and political liberty, the freedom of the press, and the independence of the judiciary. Public instruction is aided by the state.

27. Bolivia possesses but two periodicals—"La Epoca," which is issued daily and is the organ of the government, and "El Industrial," issued tri-weekly, and, as its title indicates, devoted to industrial progress. Both are published at Chuquisaca. The number of copies issued annually is 108,000, or about one copy for every 2,000 inhabitants.

28. Chuquisaca, the capital, stands on a table-land between the Rio Grande and the Rio Pilcomayo. Latitude 19° 4′, and longitude 64° 42′—elevation 9,343 feet. The town, which

was formerly called Charcas, and subsequently La Plata, is well built, and has a magnificent cathedral. It formerly gave title to an archbishop, whose palace is now the residence of the president. Among the other public buildings worthy of notice are—the Hall of Congress, the University, established in a former monastery, the College of Arts and Sciences, and the Mining School. The houses, generally of two stories, are well-built, and have usually small paved courts with streams of limpid water running through them; and the streets are regular, spacious, and well cleaned. The principal square, on which are the cathedral, palace, etc., is adorned with an elegant fountain. Chuquisaca is the seat of the legislature, of the supreme court of justice, and of several other important courts and offices. It can not be said to have either manufactures or trade, and owes all its prosperity to being the capital. The climate is delightful. The city was founded by one of Pizarro's officers in 1539, on the site of the old Peruvian town called *Choque-Chaka* or Bridge of Gold, the treasures of the Incas having passed through it on the way to Cuzco. The inhabitants are chiefly Indians, who speak the Quichua language. Population 20,000.



GRAND PLAZA—CHUQUISACA.

29. Potosi, formerly the metropolitan city, is built on the northern declivity of the Cerro de Potosi, on uneven ground, varying in elevation from 13,402 to 13,694 feet. Latitude 19° 36′, and longitude 65° 24′—67 miles southwest of Chuquisaca. It is the center of a rich mining district, and in the early part of the seventeenth century had 150,000 inhabitants, but has now only 18,000. In the middle of the city is a large public square, on which stand the old government palace, the treasury and other public offices, and the Bolivar obelisk. The most remarkable edifice, however, is the Mint, built in 1751. The suburbs, once inhabited by Indian miners, are now in ruins. The country around is bleak and barren, and the climate extremely ungenial.

30. La-Paz-de-Ayacucho is built in a deep ravine, the Quebrada-de-Choquehapu, 600 feet below Lake Titicaca, yet 12,244 feet above the sea. Latitude 16° 29′ 54″, and longitude 68° 29′ 38″. The stream which flows through the ravine, from and round Illimani, seen on the southeast, is one of the chief sources of the Amazon. The city is built on both sides of the ravine, and the two sections are united by nine fine bridges. It contains a noble cathedral, fourteen other churches, a university, a college of sciences, a law school, a school of mechanic arts, etc., and has a splendid plaza or public square. The public buildings are chiefly on the left bank. Nine tenths of the inhabitants are Aymaru Indians, whose language prevails in it. It was founded in 1548, and being situate conveniently between the fertile valley of Yungas and the port of Arica, soon rose to importance. Population 45,000.

31. Cochabamba or Oropesa stands on the Rio de Rocha, at the east end of a plain 18 miles long and 2 miles wide—8,370 feet above the sea. Latitude 17° 27′, and longitude 65° 46′. The city occupies a great space: in the middle is the grand plaza, rouud which are four churches and the cabildo or government-house, a large, but plain building. In all, the city contains 15 churches. The houses rarely rise more than one story, and are usually surrounded by gardens; the streets are broad and in good condition, but the plazas, being used as market places, are ordinarily littered with wares and crowded with Indians. The language is the Quichua, and none but men of rank can speak good Spanish. It is the most industrious town in the Republic. Cotton cloth is manufactured extensively, and there are several other branches of industry. Population 30,000. The vicinity is a fine agricultural district.

32. Oruro is a mining town, at the foot of the mountain so called, and near the entrance of the Desaguadero into Lake Aullagus. Latitude 18° 2′, and longitude 67° 12′—elevation 13,000 feet. The inhabitants are chiefly Aymaru Indians. The town is now surrounded by ruins, owing to the decline of population, which numbers about 6,000, being a reduction to a fifth of its former amount. Tarija is a small town on the river so called, an affluent of the Vermejo, and the center of a fine agricultural district. Population 3,000. Santa Cruz de la Sierra lies at the eastern extremity of the mountain region, and on an affluent of the Rio Grande. The other principal towns are those which are provincial capitals, and these usually bear the same names as the provinces respectively. On the coast the only town of importance is Cobija or Puerto de la Mar. This town is situate at the mouth of a small stream emptying into the Bay of Cobija, in latitude 22° 34′, and longitude 70° 21′. It is the only legal sea-port of Bolivia; but has very little commerce, and has no resources of its own.

33. Bolivia under Spain was known as Upper Peru, and was successively attached to the viceroyalties of Peru and Buenos Ayres. The change was effected in 1778. On the breaking out of the revolution in Lima the Spanish viceroy fled to this country and made it the scene of many battles. After the battle of Ayacucho, in which the Spaniards were entirely overthrown, the people determined to form a separate state, and on the 6th August, 1824, declared their independence. In 1825 the name of Upper Peru was changed to that of Bolivia, in honor of the South American liberator, Simon Bolivar, who framed its first constitution, and was elected its first president. In the ensuing year a successful revolution overthrew the constitution, and a national congress was assembled (26th May, 1826), by which the fundamental law was altered. Since this period the constitution has been modified to suit every aspirant, and the country as often revolutionized. None of its presidents, who were formerly elected for life, have served out one half that natural period, nor have any terminated their authority without bloodshed. This revolutionary spirit has greatly retarded industry, and left the country impoverished.

[*Weights, Measures, and Moneys.*—Identical in series and values with those of Spain. Small silver coins are of inferior standard and value.
The French metrical system is also partially in use.]

REPUBLIC OF CHILE.

1. Chile or Chili extends along the Pacific Ocean between latitudes 24° 30′ and 55° 59′ south, and back to the crest of the Andes, a distance varying from 80 or 90 miles to nearly 200 miles. The area of the whole country, including Chilean Patagonia and the Juan Fernandez islands, is estimated at 249,952 square miles.

2. Cape Horn, the most southern point of America, is thus also the southern extremity of Chile. On the north the Republic is bounded by the Desert of Atacama, and on the east by the western provinces of La Plata, with which it has communication through the high passes of the Cordillera.

3. The country is generally hilly, being crowded with ramifications from the Andes, which gradually diminish in height as they recede from the main ridge and approach the sea. These form elevated plateaux, often covered with timber and a rich vegetation, and between are deep valleys, some of which are of considerable breadth and many fertile, though numerous others are mere ravines.

4. The richest and most luxuriant districts are in the south, where the scenery is pleasing and picturesque. Proceeding north the hills assume a bleak and naked aspect, and the vegetation a more and more stunted appearance. At Coquimbo shrubs entirely disappear, their place being supplied by a scanty sprinkling of wiry grass. Farther north a scene of utter desolation presents itself, the hills and plains being covered with bare sand, and no trace of vegetation being visible. This desolate region, however, is rich in copper and other minerals, and the site of a valuable and well-developed industry.

5. The mean elevation of the great chain of the Andes that runs along the eastern limit of Chile is from 13,000 to 14,000 feet above sea-level. The loftiest summits are the neighboring heights of Tupungato and Aconcagua, northeast of Santiago (between 32° and 33° south), and having elevations of 22,450 and 22,301 feet respectively. Northward of these the highest culminations are the Cordel de la Laguna (30° 15′ south) 15,575 feet, and the Portezuelo Come Caballo (27° 30′ south) 14,521 feet high. To the southward are the summits—Maypu (34° 30′ south) 17,664 feet, Antuco (37° 40′ south) 9,245 feet, Villa Rica (39° 30′ south) about 16,000 feet, and Osorno (41° 20′ south) 7,530 feet above the sea. Minchinmadom and Yantales, each about 8,000 feet, are the highest summits in Chilean Patagonia. Sarmiento is a noted mountain on the island of Tierra del Fuego, and has an altitude of 6,900 feet. A remarkable feature in the Chilean Andes is their rising in many instances so abruptly from the plains on which they rest that one foot may be placed on the latter and another on the base of a mountain rising 6,000 or 7,000 feet high. Several mountain passes traverse the great range of the Cordillera: the most frequented is that of Aconcagua, the highest level of which is upward of 12,000 feet above the sea. Another is the Pass of Portilla (little gate), more than 2,000 feet higher elevation; and besides these there are the Pass del Planchon, the Pass of Antuco, and several others of less note. These passes are always difficult to traverse, not only from their height, but likewise from their roughness, unevenness, and narrowness, winding as they often do along the brinks of enormous precipices, and presenting so limited a pathway that it frequently becomes necessary to re-adjust the burdens on the mules' backs, lest being left an inch or so too broad, the animal may be driven over into the gulf below.



VOLCANO OF ANTUCO.

6. The portion of the Andes which forms the eastern boundary of Chile is thickly studded with volcanoes, some of them of the most formidable description. They are most numerous south of the thirty-fifth parallel, where no less than seven are found in a space of not more than two hundred and fifty miles, and it is supposed that there are many still unknown, both in this and other regions of the Chilean mountains. Few of them, however, are in a state of activity, and hence the frequency it is believed of those tremendous convulsions that are continually spreading terror and dismay throughout the country. On many occasions these convulsions have spread devastation over immense tracts, and at various times materially changed the features of the surface. By the great earthquake which occurred in 1822 a line of coast of fifty miles extent was raised nearly three feet above its original level. In 1851 Chile was again visited by one of these dreadful perturbations, which, opposite the mouth of the Maypu, was felt 40 miles off at sea, and more than 200 houses in Valparaiso, including many of the principal public buildings, were rendered uninhabitable or seriously injured. A like calamity also befell Santiago, the capital, in which the damage done was even still greater.

7. Chile has some one hundred and twenty rivers worthy of notice, forty of which, em-

bodying the waters of the others, fall into the ocean; and though the narrowness of the country limits very much the length of their courses, some of them are navigable half their way, as the Sinfondo, Bueno, Chaivin, Valdivia, Cauten, Tolten, and Maule. The Biobio, the largest of all, is much interrupted in consequence of the many reefs in its bed. The lakes are few and small: the principal ones of salt water are Bucalemu, Cahuil, Buchuquen, and Bolleruca; and of fresh water—Villarica, Ranco, and Aculéo, near Santiago. The whole of Chile belongs to the basin of the Pacific, excepting the valley of Uspallata, in the latitude of Valparaiso, formed by a bifurcation of the Andes, which sends its waters to the Atlantic.

8. The islands of Chile are—the Coquimbanas, called Mujillon, Totorol, and Pájaros; Juan Fernandez, in the South Pacific Ocean; Guiriquina, at the entrance of the Bay of Concepçion;



JUAN FERNANDEZ OR MAS-A-TIERRA.

Talca or Santa Maria, with two excellent ports; Mocha, near the coast of Arauco, twenty leagues in circumference, and with two good harbors; and the archipelagoes of Chiloe and of Chinos, and the islands to the south of them as far as Cape Horn, which together form a province of the Republic.

9. The Juan Fernandez group consists of two chief and several smaller islands, situated some 400 miles west of Valparaiso, in lat. (south point of Mas-a-Tierra, the largest island) 33° 45′ south, and long. 79° 2′ west. The other chief island is that called Mas-a-Fuero, a volcanic rock, 90 miles to the west. The principal island is about 18 miles long, by six miles in greatest width, and on its northeast side is the excellent harbor of Cumberland Bay. It is formed of a series of elevated mountains, the loftiest summit, Yungue (the anvil), rising 3,000 feet above a shore which is formed by an abrupt wall of dark-colored bare rock, 800 or 900 feet high. Basaltic, granitic, and trap rocks are the principal geological formations. The Yungue is wooded nearly from summit to base, whence an extensive and fertile valley, watered by two streams, extends to the shore. The higher parts of the island are also thickly wooded, but in some places are grassy plains of considerable extent. The neighborhood of Cumberland Bay is overrun with strawberry plants, wild radishes, mint, and balm, besides peach, apple, cherry, and fig trees, which are found everywhere. Wild goats are plentiful in the more inaccessible parts, whither they have been driven by swarms of wild dogs that occupy the lower grounds. The island is now leased to a party of settlers employed in taking seals and fish, and drying the latter for the Chilean market. Mas-a-Tierra was a favorite resort of the Buccaneers in their expeditions against the Spanish-American possessions. In 1741 Lord Anson here refitted his vessels, and in 1749 the Spaniards formed a settlement on the island, which was subsequently abandoned. De Foe is supposed to have founded his "Life and Adventures of Robinson Crusoe" on the history of the solitary residence here for four years of a Scotchman named Alexander Selkirk.

10. The coast is bold and rocky, and in general has deep water close in shore. The harbors are numerous, but many of them require the hand of industry to make them available. Beginning at the north—Betas, at the mouth of the Salado, Juncal, and Chañaral de las Animas are unsheltered; Caldera has the best anchorage in the Copiapo harbor; Huasco and Coquimbo, safe and beautiful; Valparaiso, the principal port, open to the north winds and unsafe; San Antonio, Topocalma, and Buchuquen, insignificant; Constituçion, in the mouth of the Maule, dangerous on account of its movable banks; Curanipe, Tomé, Cerrilloverde, and Talcahuano, in the large and fine Bay of Concepçion; San Vicente, and after some others on the coast of Arauco, Valdivia, the best port of Chile. The Archipelago of Chiloe has two fine ports, Ancud and Castro. Following the coast of the continent, there are San José, the Bay of Purgatorio, St. Quintin's, San Estevan, San Andres, and on the Straits of Magellan San Felipe or Famine. In this latter is the fortress Bulnes, that contains a Chilean colony.

11. Nature has been prodigal in the mineral kingdom of Chile. Gold is found in its mountains, in the earth of many places, and mingled with the sands of many rivers and torrents. The silver ores of Chañarcello and Tres-Puntas have effaced the reputation of those of Potosi; but in copper Chile has no competitor in the world, its abundant ore being not seldom enriched by having in its composition large quantities of gold. To these three staples, and lead and tin sufficient for home consumption, the mining industry of Chile is at present directed; but the investigations of geologists have sufficiently demonstrated that quicksilver and iron, rich marbles, jasper, alabaster, agate, jet, sapphire, loadstone, rock-crystal, sulphur, coal, and slate exist in immense quantities, and at no distant future will become exhaustless sources of wealth to the country.

12. The climate is one of the healthiest in the world, but the atmosphere near the sea-coast is still finer than that of the interior, being less subject to variations. January and February are the hottest months of the year, the thermometer frequently indicating 90° and 95° Fahr. in the shade, but after sunset the air is cooled by a refreshing breeze. Rains fall only in the winter months, and after these the whole valley country is clothed in a vast and gorgeous variety of flowers. The rains are frequently so heavy as to interrupt all out-door business. In the interior parts of the Cordilleras, snow falls at intervals during the winter and in some of the mountain gorges never disappears altogether. Generally by December the greater part has been melted, supplying the rivers with an abundance of water. In the central parts storms of hail are frequent in the winter, and thunder and lightning in the more elevated regions. The lightning is very vivid and the thunder appalling, from its reverberation among the hills and ravines. The climate, however, varies considerably with the latitude, and also with the physical formation of localities.

13. Though possessing many fertile tracts, a great portion of Chile is unsusceptible of cultivation, being naked and mountainous, especially toward the north. The south provinces present a different appearance; and here a profuse vegetation prevails—dense forests are spread over the land, and the sides of the Andes are covered with herbaceous plants and flowers of the richest and most beautiful hues. Laurels, myrtles, cypresses, and other evergreens, attain here a gigantic size, their timber being available for various purposes. Hardwoods of different descriptions also abound, and throughout the country valuable medicinal herbs are indigenous.

14. Chile is remarkably free from the larger and fiercer animals, and also from noxious insects and reptiles. The animals common to the continent, however, are found here, including the guanaco, a species of llama, the cougar or puma, the jaguar, monkeys, etc., and the skunk, remarkable for the offensive odor it emits. Among the feathered race are the great condor, vultures, pelicans, parrots, parroquets, etc. On the coast, whales, dolphins, cods, pilchards, etc., are caught. Fish and shell-fish of all kinds, indeed, are very plentiful, and on the shores and in the waters of Chiloe they supply the subsistence of thousands of swine. All the domestic animals of the old continent have been prodigiously propagated and improved. The horse is more fiery, swift, and handsome than the Andalusian, its progenitor; the cow larger and more robust than that of Europe; the sheep furnish long and fine wool. Black cattle are raised in great numbers. The mules and asses are also excellent, being of good size and of extraordinary endurance. Some native quadrupeds, as the vicuña, chillihueque, and huanaco, afford beautiful skins.

15. The Chileans are mostly of Spanish and Indian descent. They are represented as possessing considerable activity, and to form an honorable exception to the indolence which generally characterizes the Indo-Spanish races. Their advancement in civilization is rapid, and the material prosperity of the country ever on the increase. The Chileno Indians, or aboriginal population of Indian Chile, the country to the south of the Biobio River, are more



TRADING WITH THE INDIANS.

civilized than the Indians of the Pampas, and excel in weaving and the manufacture of pottery. The Indians of the coasts and islands are expert fishermen, and subsist almost wholly on the products of the sea, while those of the interior cultivate the earth, and in some instances possess large herds of cattle.

16. The Republic is divided into thirteen provinces and two colonies, and the provinces into departments, subdelegations, and districts. The grand divisions are as follows:

Provinces.	Area, sq. m.	Population (1855).	Chief Towns.
Atacama	18,272	50,690	Copiapo.
Coquimbo	16,976	110,589	Serena.
Aconcagua	14,722	111,504	San Felipe.
Santiago	11,226	272,499	SANTIAGO.
Valparaiso	2,642	116,[illegible]43	Valparaiso.
Colchagua	9,2[illegible]8	19[illegible],704	San Fernando.
Talca	8,312	79,439	Talca.
Maule	8,862	156,245	Cauquenas.
Nuble	8,127	100,792	Bellaisla.
Concepçion	13,236	110,291	Concep;ion.
Arauco	27,837	43,466	Angeles.
Valdivia	22,[illegible]64	29,293	Valdivia.
Chiloe	18,868	61,586	San Carlos.
Colonies.			
Magallanes	70,000	153	Port Famine.
Llanquihue		3,826	——
Total	249,952	[illegible],439,[illegible]20	

17. Of the total population, 712,932 were males and 726,188 females, and 1,419,451 were natives and 19,669 foreigners. The foreigners were thus classified:

Argentinas	11,324	English	1,934	Spaniards	915
North Americans	680	Germans	1,929	Italians	399
Peruvians	599	French	1,650	Portuguese	168

and 71 Chinese. The Germans are principally settled in the colonies.

SOUTH AMERICA

(WESTERN SHEET)

1/14.495.100 of Nature

SCALE OF STATUTE MILES.

0 40 80 160 240 320

200 Geographical or 230.53 Statute Miles, to one inch.

Capitals ✻ LIMA Capitals of Provinces ⊙ COBIJA

CHILE

Scale same as Main Map

Capitals of Provinces ⊙

Rail Roads

LONGITUDE WEST FROM GREENWICH 80 75 70 65 60 55

LONGITUDE EAST FROM WASHINGTON WEST 3 2 12 17 22 27

ATLANTIC OCEAN

PACIFIC OCEAN

CARIBBEAN SEA

VENEZUELA

NEW GRANADA

ECUADOR

PERU

BRAZIL

BOLIVIA

ARGENTINE REPUBLIC

PARAGUAY

BRITISH GUIANA

DUTCH GUIANA

FRENCH GUIANA

Cape Blanco

Cape North

Entered according to Act of Congress in the Year 1858 by J. H. Colton & Co. in the Clerks Office of the District Court of the United States for the Southern District of New York.

18. The most important branches of industry pursued in Chile are mining, agriculture, and commerce. In all these the country ranks high among the Indo-Spanish nations of South America. Manufactures are not carried on as a staple industry, but still many of the domestic wants of the people are supplied by Chilean artisans.

19. The great mining region of Chile occupies the provinces north of the river Maule; but mining operations are chiefly carried on in Coquimbo, and to a less extent in Atacama and Santiago. Within these regions are produced the gold, silver, and copper for which the country is so famous. Lead and tin are also objects of Chilean mining industry. Many of the mines are worked by foreign companies; and of late years much of the copper which was formerly exported in ore is now reduced and sent off in bars.

20. The production of silver now amounts to about $6,000,000 a year, and of gold about $2,600,000 in value. These sums, however, are simply approximate, and may only represent the yields of the better known districts. The quantities of copper produced in 1855, as represented by the exports from Copaipo in the year named, were—copper in ore 174,068 quintals, valued at $600,000, as regulus 120,856 quintals, valued at $1,200,000, and in bars 78,612 quintals, valued at $1,800,000, or in all valued at $3,600,000. The facilities for transportation in the mining regions have been largely augmented by the construction of a railroad from Copaipo to the port of Caldera.

21. As agriculturists the Chileans are industrious, and, though unacquainted with modern implements or the scientific modes of cultivation, produce abundant crops, and have a large amount of livestock. Some of the grazing farms own from 20,000 to 30,000 heads of cattle. In the north, maize is the principal object of culture, and in the south wheat and barley. Wheat may also be considered as the staple of the valleys. Leguminous vegetables are grown in abundance, and furnish the laboring classes with a wholesome, cheap food. Chile is also the country of the potato. The vine is grown from Copiapo as far as Concepçion.

22. Chile does not claim to be a manufacturing country. It has, however, a considerable number of minor establishments, making hempen cloth, earthenware, cordage, soap, copperware, leather, brandy, tallow, etc., and besides these it possesses a large number of flour mills, which produce an excellent article. In the cities are found artisans working in gold and silver. A large portion of the population also wears home-made stuffs, especially woolens, although the importation of textile fabrics is constantly increasing.

23. The internal trade of the country is greatly impeded by the want of good roads, but still it is large and increasing, and Chile has also a considerable transit trade between its Pacific ports and the countries east of the mountains. The latter is chiefly carried on by mule conveyance through the mountain passes. The common cart of the country is represented in the annexed cut. With regard to internal improvement, great efforts are now being made to build railroads between the principal places, and already (1857) railroads have been completed from Caldera to Copiapo, 50 miles, and from Valparaiso to Limache, 36 miles, the latter to be extended to Santiago. The electric telegraph has also been partially introduced.



CHILEAN CART.

24. Chile has a valuable commerce with all the leading nations of the old and new worlds, and this of late years, under the influence of favoring circumstances, has wonderfully prospered. The value of imports and exports in the years named was as follows:

Years.	Imports.	Exports.	Years.	Imports.	Exports.
1850	$11,788,193	$12,426,269	1853	$16,687,178	$13,011,627
1851	15,884,972	12,146,391	1854	17,428,299	14,627,156
1852	15,347,232	12,116,486	1855	18,438,285	17,676,911

Great Britain and the United States share largest in this commerce, and after them France and Germany in Europe, and Peru, Brazil, and Bolivia in America. The shipping, chiefly foreign, employed in maritime commerce in 1855, consisted of 4,987 vessels of 1,482,179 tons. The merchant shipping belonging to Chile numbered, in 1856, 265 vessels, measuring 62,005 tons, and employing 2,824 men. In 1848 it consisted of 105 vessels (12,628 tons) only.

25. The sovereignty rests with the nation, which delegates its exercise to the legislative, executive, and judicial authorities. The legislature consists of a chamber of representatives, the members of which, 84 in number, are elected directly by the people, and renewed every three years, and a senate of 20 members, chosen for nine years by electoral provincial colleges, one third the number triennially. The executive power is exercised by a president, with his secretaries and a council of state; his term is five years. He appoints all the officers, civil and military, of the Republic, and the highest ones by the advice of the council of state or of the senate. The judicial power appertains exclusively to the high courts and inferior tribunals designated by special law. The right of voting belongs to citizens who can read and write, and have some income, profession, or trade. Slavery was abolished in 1818. There are no differences of castes, no privileges but for the encouragement of industry, no hereditary prerogatives—all are equal before the law. Foreigners may become citizens after a residence of ten years, or if married and supporting a family, six years' residence is sufficient, and only three years if married to Chilean women. The religion of the state is the Roman Apostolic Catholic, to the exclusion of the public exercise of all other religions; and for ecclesiastical purposes the Republic is divided into the archbishopric of Santiago, and the bishoprics of Coquimbo, Concepçion, and Chiloe. The provinces are governed by intendentes appointed by the president; and the departments, subdelegations, and districts by governors, subdelegates, and inspectors respectively. The cities are municipalities, with alcaldes and regidores.

26. The armed navy of Chile consists of—the frigate "Chile" (out of service), 30 guns; the sloop "Constitution," 18 guns; the brigs "Meteoro" and "Ancud," each 10 guns; the schooner "Janaquero," 5 guns; the steamers "Esmeralda," 20 guns, and "Maule," 8 guns; and the transport barque "Indefatigable," 3 guns. The military force consists of—artillery 303, infantry 1,598, cavalry 655, military school 38, and invalids 409—2,993 men of all arms. The militia numbers about 120,000 men.

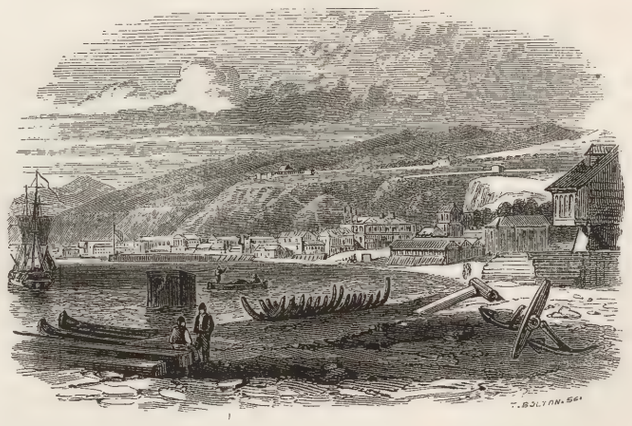
27. The public finances of Chile are in a more prosperous condition than those of any others of the South American republics. The national debt is being reduced, and the interest thereon is regularly paid. In 1854 the foreign debt amounted to £1,420,800 sterling, of which £737,000 was 6 per cent. debt, and £683,800 was 3 per cent. debt. The domestic debt amounted to $1,633,800. The revenue for the year 1854 amounted to $5,946,216, and the expenditures for all purposes to $5,924,300.

28. Education is liberally provided for, and a system of schools supported by the state. In 1853 the number of scholars in the common schools was only 8,932, but in 1856 the number had risen to 30,613, of which 22,717 were males and 7,896 females. Normal schools and lyceums have also been established, and the principal cities and towns have high schools or colleges, while at the capital are the University, the National Institute, and the Military Academy, etc. Chile has also a naval school. There are few, indeed, among the higher classes but have received a liberal education.

29. The periodical press of this country is creditable and well-organized, and consists of fourteen separate issues, circulating annually 2,028,800 copies, or one copy for every 239 inhabitants. Santiago, Valparaiso, and Copaipo have each two daily issues. The most important of these is El Mercurio, which has existed more than a quarter of a century, and which compares well with the best of other countries. Besides its daily circulation of about 2,000 copies, it has a semi-weekly edition for the provinces and a bi-weekly one for foreign countries. The other papers of Valparaiso are El Diario, semi-official, and El Mensagero; and those of Santiago are the Ferro-Carril—recently established, the Araucano—the official organ, La Revista Catolica—organ of the clergy, and La Revista de Santiago—a literary paper. El Coplapino represents the mineral interest of the province of Copiapo. The first public press in South America was erected in Santiago in 1812.

30. The principal cities of Chile are Santiago, the capital, and Valparaiso, the chief port of the Republic. Santiago is built on a wide and fertile plain at the foot of the Andes, about 90 miles east-southeast of Valparaiso. Latitude 33° 35′ south, and longitude 70° 44′ west—elevation 2,000 feet. Few cities can boast of a finer site, more delightful climate, or grander scenery; and the surrounding country is dotted over with tasteful villas and well-cultivated farms. The city itself is handsome and well built, with streets intersecting at right angles and lighted with gas. The Mopocho, a rapid stream from the Andes, which intersects the city, affords a plentiful supply of water. Among its public accommodations Santiago possesses very fine promenades. The Alameda is truly magnificent, and the Tajamar, formed by the embankment of the Mopocho, affords the grandest display of mountain scenery. The plaza or great square is a large open area, adorned with a fine fountain and surrounded with public buildings, etc.—the old palace, now used as barracks, prison, and treasury; the Bulnes Arcade, containing the most fashionable shops in the city, and the Cathedral, an imposing edifice of porphyry. The Mint, however, is the handsomest building in the capital, and a part of this large building has of late years been fitted up as a palace for the president and into offices for the ministers. Among the other public buildings of Santiago are its numerous churches and monastic establishments, two large and well-endowed hospitals, the University, the National Institute, the Military Academy, two theaters, etc. It has also numerous high and public schools, and a normal school for the training of teachers. Santiago was founded in 1541, and now contains 80,000 inhabitants. A railroad is being built between this city and Valparaiso, which will be 110 miles long. The present carriage-way connecting the two cities is the best in the country.

31. Valparaiso (vale of Paradise), so named from its delightful position, is situated on a semicircular bay, in latitude 33° 2′ south, and longitude 71° 42′ west. The harbor is well sheltered, except on the north, and is capable of accommodating a large fleet. The town is built on the lower slopes of a range of lofty heights which encircle the bay. It is an ill-paved place, nor has it any buildings that are remarkably noteworthy, except, perhaps, the Custom House and the extensive warehouses attached to it. Valparaiso, however, is the principal port of the country, and the mart of three fourths of the national commerce. The city is fast spreading beyond its original limits, and now contains between 40,000 and 50,000 inhabitants.



CITY OF VALPARAISO.

32. None of the other towns of Chile are large, but several are important. Commencing at the north and proceeding southward are—Copiapo, the center of a vast mining industry, and connected with Caldera by a railroad 50 miles long; Coquimbo, a small but well-built town, with its port at Baizas, and also a mining center; Talca, one of the largest and most thriving towns of the Republic, and its port La Constitution, both on the river Maule; Con-

cepçion, a thriving city on the Biobio, seven miles from its mouth, and its port, Talcahuana, a small fortified town on the Bay of Concepçion; Valdivia, around which many Germans have settled, and its port of the same name, one of the best and most strongly fortified harbors on the Pacific; San Carlos, the capital of Chiloe, and a fine port, etc.

33. Of the original inhabitants of Chile, history has left no records. In 1532 Pizarro, the conqueror of Peru, sent his colleague, Almagro, into the country, but he was driven back by the Indians. A second invasion was undertaken in 1540, which proved more successful, although it cost more sacrifice of life and treasure than the conquest of all the rest of America; nor have the Araucanians, the bravest of the aboriginal tribes, succumbed to this day.

34. The Spanish colony was governed by a captain-general, president of the kingdom of Chile, a royal court of justice as his advisers, several tribunals, intendentes, and chiefs, until Napoleon's army entered Spain. The Chileans embraced this opportunity to throw off their allegiance to the Spanish crown, and on the 18th September, 1810, established a junta gubernativa, and the first national congress was inaugurated in Santiago on the 14th July, 1811. The Spaniards now commenced a sanguinary war against the patriots, and after many vicissitudes the Chilean army obtained a complete triumph in Chacabuco, on the 12th February, 1817. On the same day of the following year the independence of the Republic of Chile was sworn to and promulgated to the world. The glorious victory of Maypû, on the 5th of April of that year, sealed that declaration, and the Spaniards lost the last bulwark they had by the surrender of Chiloe in January, 1826.

35. Civil war, the most fearful of calamities, succeeded to the sacred war for liberty; one constitution was tried after another, and the infancy of the Republic was thus prolonged. But at last the people became tired of so many misfortunes, and a constitution was promulgated on the 25th May, 1833, which has been for Chile a sheet-anchor of salvation. At the present day Chile is the best governed, most prosperous, and happy of all the South American states.

[*Weights, Measures, and Moneys.*—The Chilean government has recently adopted the metrical system of the French to its full extent. The old denominations were those of Spain, with some slight difference in the values of the weights and measures. The present dollar is equivalent to five francs.]

ARGENTINA OR ARGENTINE REPUBLIC.

1. The Argentine Republic embraces the vast country extending from the Bolivian frontier, near the 22d parallel, to the Rio Negro, the mouth of which is in about 41° south latitude. The high Andes bound it on the west, and the Plata-Parana and Uruguay rivers and Atlantic Ocean on the east. With an average length, north and south, of 1,200 miles, and a breadth of 700 to 800 miles, the area is computed at 786,000 square miles.

2. This is a country of immense plains; but in its western part it is frequently crowded with ramifications of the Cordillera, and in the distance snowy and volcanic heights are discernible. At the foot of these are well-watered hilly tracts and habitable lowlands. Hills are also frequent about the Rio Paraguay, and the plains south and southwest of Buenos Ayres are traversed by low ranges. Mountain, however, forms but a comparatively small portion of the whole country.

3. The Rio Negro forms the actual southern boundary of the Argentine country, although it is claimed by the Republic that its territories extend as far south as the Straits of Magalhaens. Including the unsettled region here referred to, we find the plains broadly distinguishable into three regions—the Patagonian plain, extending from the Straits to the Negro; thence the pampas northward to the Rio Salado, and north of these and west of the Paraguay is the desert named the Gran Chaco.

4. The Patagonian plain (elsewhere more minutely described) is everywhere covered with coarse shingle, lava, or volcanic ashes, and may appropriately be called a stony desert. Vegetation is here very scant. This formation of coarse gravel, composed chiefly of fragments of porphyry, probably extends some distance north of the Negro at the west side of the plain at the foot of the Andes. On the east it terminates at the mouth of that river, where begins a deposit of fine sand and clay, which covers the plains round Buenos Ayres and some way up the Parana, clearly marking the extent of the ancient estuary. This is pasture land, not luxuriant, but of vast extent. Advancing north in the pampas and Gran Chaco, the increasing frequency of thorny mimosas and the cactus indicate the change of climate.

5. In general the cultivable lands of the country are confined to the banks of the rivers, or rather to their mouths (for the banks of the Parana alone are habitable throughout), and to the country at the sources of the rivers. The intermediate tract between the eastern offshoots of the Andes and the Parana is more or less arid, and even states are separated from each other in some cases by barrens or salt deserts.

6. The pampas are, to a great extent, condemned to sterility for want of streams to irrigate the soil; while from their northwest and north confines rivers of great magnitude descend, and, meeting together, pour their united waters into the ocean through a common outlet. This outlet is the Plata, which, in reality, is not so much a river as a vast estuary, and which, at its entrance between Cape San Antonio and Punta de la Ballena, is 170 miles wide. The confluence of the tributary rivers—the Parana and Uruguay—is situated 35 to 40 miles above Buenos Ayres.



CATCHING WILD CATTLE ON THE PAMPAS.

7. The Uruguay, which is said to take its name from its numerous falls, rises near the coast of Brazil, in latitude 27° 30′ south, and has a length of 800 miles. In its course it receives its chief accessions from the east, and lower down the Negro, the great river of the Banda Oriental, falls into it just before its junction with the Parana.

8. The Parana is one of the greatest rivers of the continent. The sources of this river are in latitude 22d south, about 100 miles northwest of Rio de Janeiro, but some of its tributaries rise in latitude 16° south. Its course for the first 400 or 500 miles is chiefly west; then turning south it forms the east limit of the country called Paraguay, and bending again west it is joined by the Paraguay in latitude 27° 30′ south, when it takes the direction of the latter and flows south. Its length from its source to the junction is probably 1,500 miles, and thence to the sea 760 miles more. In breadth, current, and volume the Parana has ten times the magnitude of the Paraguay, but owing to its rapid descent is not navigable for more than 250 miles. In the lower part of its course the Parana is deep, broad, and unobstructed. On the west it receives the Salado, which rises in the Andes in latitude 25° south, and reaches the main stream at Santa Fé, after a course of 1,000 miles.

9. The Paraguay, the principal tributary of the Parana, takes its rise in Brazil (latitude 13° 30′ south), among the hills of Matto Grosso, which separate the basins of the Plata and the Amazon. Flowing south, and receiving the Jauru, 1,200 miles from the sea, it becomes navigable for vessels of 40 tons. It drains a great extent of inundated country, which during the floods presents the appearance of a great inland sea, with an area of 20,000 square miles, and known as the Lake of Xarayes. Lower down it receives the Pilcomayo and Vermejo from the west, besides numerous smaller streams from the east before it reaches the Parana. The Pilcomayo, rising in the neighborhood of Potosi, joins the Paraguay after a course of 800 miles, and the Vermejo, collecting the waters of the Jujuy and Tarija, flows in a general direction parallel to the Salado. These two rivers, with the Salado, drain the Cordillera of the Andes through an extent of 600 miles.

10. In general, the eastern tributaries descend with great rapidity, and offer little facility for navigation; those from the Andes, on the other hand, wind slowly through an immense extent of level plain, and are available to a great extent. The floods conveyed to the Plata, owing to the variation of climate and seasons throughout its wide basin, arrive at different periods, and tend to equalize its waters throughout the year. The Uruguay is flooded from June to November; the Parana pours down its greatest torrents in December; while the Paraguay, swelled by the overflowing of the Lake of Xarayes, rises regularly from February to June.

11. The rivers of the pampas which do not belong to the basin of the Parana have little relative importance, and are for the most part wasted by evaporation, or terminate in occasional lakes, marshes, or salt-pans. Few of any size reach the sea, and of those that do, the lower Salado, Colorado, and Negro are alone worthy of mention. The Colorado and Negro are constant streams, but not navigable for any great distance from their mouths. The Salado is dry for the greater part of the year.

12. Lakes, lagoons, and marshes are relatively numerous and extensive, but all more or less temporary or periodical. With few exceptions, those of the plains west of the Paraguay and Parana are salt, and those east fresh. Of the latter, the most remarkable is Lake Ybera, in Corrientes, extending from the south bank of the Parana, where it flows west, to the east bank of the same river, farther south. It is said to be filled by infiltration from the great river, without any visible connection with it, and at times covers an area of perhaps 1,000 square miles; but, like Lake Xarayes, farther north, this apparently great sea has depth of water only for light canoes, and is covered with aquatic plants.

13. The lakes on the west and south plains generally disappear soon after the rainy season has closed, leaving the ground incrusted with salt to the depth of several inches. The saline deposits thus resulting from the evaporation of the waters which have washed the surface vary in different localities. South of Buenos Ayres, and also at a distance in the west, near San Luis, culinary salt (muriate of soda) is found in great abundance, and is used in curing provisions. In other places are collected glauber's salt (sulphate of soda) and epsom salt or sulphate of magnesia. From the latter, which covers the plain round the fort of Melincue, west-northwest from Buenos Ayres, is prepared the magnesia of commerce.

14. The rocks which show themselves above the general plain of La Plata and in the islands of the Parana are chiefly granitic; and in some parts in the hills of Buenos Ayres, the granite is covered to some extent with rocks of pure white quartz. The Patagonian plains, the pampas, and Gran Chaco are all characterized by a great diluvial formation, which varies but little throughout in nature or in age. It consists of a calcareo-argillaceous conglomerate, in horizontal strata; and in Patagonia exhibits a succession of terraces rising toward the interior. The inner terraces are capped with lava. In the lower diluvial strata are found marine remains, partly of extinct and partly of existing species; and these occur even at the foot of the Cordillera, and in some instances on the mountains themselves at the height of nearly 14,000 feet. In the strata next above are embedded the fossil remains of extinct mammalia, generally of colossal size, and bearing striking analogy to the existing fauna of Africa. From the lower part of the Rio Colorado stones disappear, and for some hundreds of miles south and

west of Buenos Ayres scarcely a pebble is to be seen. In this extensive tract a fine alluvium has been deposited on the diluvial formation of the pampas. The deposition is still rapidly going on in the Plata, and in a few centuries, perhaps, that wide but shallow estuary will be converted into a delta of low islands, resembling in soil the plains of the south shore. The Cordillera on the west border of the provinces abounds in mineral treasures—gold, silver, and copper ores; and immense boulders of iron, containing nickel, are observed in the Gran Chaco and other portions of the plain.

15. One of the great characteristics of the climate is dryness, the moisture from the Pacific being intercepted by the Andes, and that from the equatorial regions reaches but a short way beyond the tropics. This dryness of the atmosphere is most observable in Patagonia, and though the moisture increases northward, there is still a great deficiency of fresh water. In the immediate vicinity of Buenos Ayres, and some way south of it, the exception to this general climatic feature is very notable, and the moisture is excessive. The temperature is greatest in the north, and gradually decreases on proceeding to the south. At Buenos Ayres the annual mean is about 64°—between 52° and 72° Fahr.; and in the west, near the Cordilleras, the local climate varies continually with height and exposure; but though the temperature is equable, the skies are not always calm. The pampero or southwest wind sometimes blows with tremendous violence, driving back the waters of the Plata for miles, and bearing clouds of dust, and should rain then fall, the dust descends in a shower of mud. The mouth of the Plata, indeed, appears to be one of the points on the earth's surface most frequently visited by storms, and near its shores lightning and hail-storms are particularly violent and destructive.

16. The plains present but scanty vegetation, and, except on the Parana, the deficiency of wood is extreme. On approaching the tropics, as well as the Cordilleras, vegetation becomes varied and luxuriant; and in Salta and Mendoza the first tropical forests are met with. Otherwise the prevailing growths are of the mimosa and cactus tribes, which in many parts form impenetrable thickets, or rather miniature forests.

17. The animal kingdom in its forms offers greater variety than the vegetable. The colossal armadilloes (megatherium and glyptodon), the llama as large as a camel, the American horse, the elephant, toxodon, and chamyphorus are now extinct; yet, with a few exceptions, animals of the same type, but diminished size, still remain. The guanaco or wild llama is the characteristic animal of the plains. The vicuna, a kindred species, is found in the mountains. The capybara (water-hog) is the largest of the rodentia; and the tapir is frequently met with in the north. The cougar or puma, the jaguar or tiger, and the ounce are more widely distributed. Two species of ostrich roam over the plains, and armadilloes and agoutis are very numerous. Of the bird tribe, the most numerous are the predaceous kinds, as the condor, vulture, gallinazo, turkey-bustard, etc. Three species of partridge inhabit the pampas; and in the north parrots become numerous, and the endlessly varied plumage of the tropical region begins to appear.

18. But the indigenous animals of these vast plains have been mostly expelled and superseded by the horse and horned cattle, which now wander in droves of thousands. Sheep are also numerous in the west provinces, where the country is elevated. The horse of the pampas is small and coarsely formed, but at the same time active and capable of great endurance. The multiplication of the horse has completely changed the manners of the aboriginal tribes, who are now wholly equestrian, and subsist chiefly on mare's flesh.

19. The natives of this country belong to three different races: the Araucanian, which includes the Patagonians, the Pequenches, etc., who roam over the plains as far north as the Salado; the Peruvian, speaking the Quichua language, which reaches east from the Cordillera as far as Santiago; and the Guaranis, which extends from the Salado of the Parana a long way north through Brazil. The Spaniards, though comparatively few in numbers, are now the dominant race. From their mixture with the native women have sprung up colored races, differing according to the descent of their mothers, and forming in the remoter districts the great bulk of the population. About the shores of the Plata there is a considerable admixture of negro blood, but full-blooded negroes are seldom seen, the slave trade having been abolished at the revolution. To the races above mentioned and the various colored offspring of their admixture are to be added the Europeans, chiefly English, French, German, Italian, etc., who, as merchants or settlers, reside in the provinces or at Buenos Ayres.

20. The Argentine Confederation in its integrity, and exclusive of the Gran Chaco (82,000 square miles) and Patagonia (210,000 square miles), consists of fourteen provinces or states:

States.		Area, sq. m.	Population.	Capitals.
Buenos Ayres	Littoral.	127,000	350,000	Buenos Ayres.
Santa Fé	Littoral.	41,000	32,000	Santa Fé.
Entre Rios	Littoral.	58,000	50,000	Parana.
Corrientes	Littoral.	49,000	84,600	Corrientes.
San Luis	Southern.	36,000	40,000	San Luis.
Mendoza	Southern.	47,000	60,000	Mendoza.
San Juan	Southern.	39,000	40,000	San Juan.
Cordova	Northern.	45,000	150,000	Cordova.
Rioja	Northern.	58,000	40,000	Rioja.
Santiago	Northern.	69,000	80,000	Santiago.
Tucuman	Northern.	42,000	60,000	Tucuman.
Catamarca	Northern.	38,000	70,000	Catamarca.
Salta	Northern.	21,000	60,000	Salta.
Jujuy	Northern.	34,000	40,000	Jujuy.
Total		704,000	1,156,600	

In 1853 Buenos Ayres separated from the other thirteen states and constituted itself an integral republic, and still (1857) continues its separate existence. The uncivilized Indians of the Gran Chaco and Patagonia are not accounted for in the above estimate of population.

21. The chief wealth of the country is comprised in the herds, droves, and flocks spread over the pampas. Agriculture, in a proper sense of the term, supplies little more than a deficient amount of grain and roots for consumption. About 3,000,000 cow-hides and 250,000 horse-hides are annually produced, besides sheep and other skins, and a considerable quantity of wool. Tallow and jerked beef are also staples of export.

22. The most important branch of manufacturing industry is that of *ponchas*, or oblong square pieces of woolen cloth, used by the people as cloaks. The finest are made of vicuna wool, in the town of Santiago del Estero. Some woolen fabrics and saddle-cloths are also manufactured; but the greater portion of wearing and household articles are now imported, and even the coarse cottons formerly made for family use have given way to the better cloths of foreign make.

23. The import and export trade has of late years largely augmented. In 1825 the imports into Buenos Ayres amounted only to $7,560,000—in 1851 they had risen to $10,128,000; and in the latter year the exports were valued at $10,808,184. The value of hides exported was $6,242,736, of tallow $1,044,912, and of wool $912,288. These figures do not include the exports and imports of the northern provinces, which were made through Montevideo, nor yet the border trade with Peru, Bolivia, and Chile. The internal commerce of the provinces is large, as most of them have some products which are either not at all or only to a small amount raised by the others. Thus, the cotton of Corrientes and of Catamarca and the wines and brandies of Rioja, San Juan, and Mendoza are transported from the place of growth to the provinces which are most distant from them; and in this way a considerable interchange is effected.

24. The States denominated the Argentine Confederation are severally independent communities, and each has its separate government, as in the United States. The bond of union between them, if any exist, is merely in relation to their foreign affairs, which had hitherto been transacted through the government of Buenos Ayres. The revolution of 1852, however, has tended to a closer union, and in its arrangements all the States except Buenos Ayres have coincided. That State still adheres to its former pretensions, and refuses to acknowledge the new Confederacy; but while thus isolating itself, all commercial restrictions along its borders have been abolished.

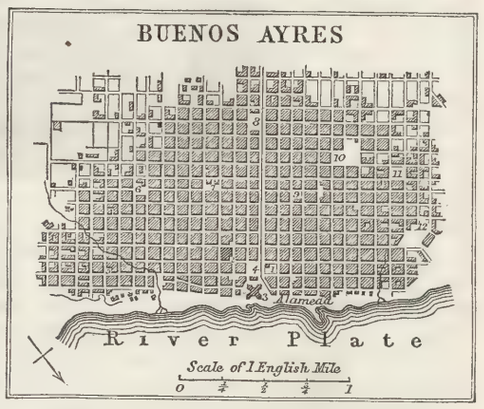
25. The national debt of Buenos Ayres, according to the returns of 1850, amounted to $18,283,244 specie, of which sum $13,533,244 constituted the domestic debt, and $5,250,000 the foreign (English) debt. No interest has been paid since 1847. The amount of government paper in circulation was $105,000,000. This vast paper issue has caused a corresponding depression in its value, so that in 1850 the average ratio of current and specie dollars was as 14¼ to 1. The receipts into the treasury in that year amounted to $71,683,614 currency, and the expenditures to $71,337,004.

26. Pending the present exceptional condition of affairs in this country two armies are supported—that of the Argentine Republic proper, consisting of about 5,000 men, and that of Buenos Ayres, of 4,000 men. Buenos Ayres has also a small naval force, consisting of two steamers, four corvettes, and 30 other small vessels.

27. Popular education is unknown in this country, but for the higher classes there are respectable schools, colleges in the principal cities, and universities at Buenos Ayres and Cordova. The Roman Catholic religion is that professed by all the inhabitants and protected by the States.

28. The periodical press consists of 11 separate issues. Of these, five, circulating 360,000 copies annually, are published in the Confederation, and six, circulating 1,224,000 copies, in Buenos Ayres. The newspapers of Buenos Ayres, like those of Chile and New Granada, are well conducted, and serve with zeal the interests of civilization. The principal are El National, El Orden, La Cronica, El Internacionel, and the British Packet. Out of Buenos Ayres newspapers are issued at Mendoza, Corrientes, Tucuman, Parana, and Rosario.

29. Buenos Ayres, the metropolis, is situate on the south side of the Plata estuary, about 150 miles from the sea, opposite the town of Colonia. Latitude 34° 35′ south, and longitude 58° 22′ west. The city stands on a slightly elevated ridge, running parallel with the river, and is built with great regularity and neatness, but is somewhat monotonous The streets intersect each other at right angles at every 150 yards, and form numerous squares of considerable extent, but in the buildings there is little of architectural beauty. They are also broad, spacious, and now pretty well paved. Formerly they were almost impassable on account of mud in wet weather and dust in dry weather. The granite with which they are paved is obtained from some islands in the river above the town. The houses—which are built, the older of sun-dried brick and the more modern of burnt brick—have been greatly improved of late years. Almost every house has a garden before and another behind; and many have balconies with lattice-work for the purpose of training shrubs and flowers. The windows toward the streets, generally two in number, are often without glass, having instead iron gratings, which gives them a gloomy and prison-like appearance. The floors are generally paved with brick, the use of wood in their construction being avoided as much as possible. The city occupies an area of about 2,000 acres. The principal public edifices are its churches, most of which, however, are unfinished. The Cathedral is a domed building in the great square, in which are also the City Hall, a double range of shops fronted by a colonnade, and an obelisk commemorative of the declaration of independence. The city has also several convents, a Protestant church, a foundling hospital, orphan asylum, etc., all built of a fine white stone quarried in the vicinity. The residence of the governor and the government offices are in a fort near the river. The University occupies extensive buildings, and has a library of 25,000 volumes, and connected therewith are a collection of natural history, an observatory, a school of mathematics, a public school, and a school of painting and drawing. Several other literary and scientific institutions have been established since the period of the revolution, including a society for the promotion of natural philosophy and mathematics, two academies (one of medicine and the other of jurisprudence), a normal school, and an association for the promotion of agriculture. The town is but indifferently supplied with water, and the wells are all brackish. The only supply is from the river. Manufactures are chiefly confined to the making of cigars, carpets, furniture, boots and shoes, etc. The navigation of the Plata, here 36 miles broad, is difficult, and ships drawing 16 feet water are obliged to anchor in the roadstead, seven or eight miles distant, to and from



1. Cathedral.
2. University.
3. Fort.
4. Plaza de la Victoria.
5. Plaza del Commercio.
6. Plaza de la Intendentia.
7. Plaza del Buen Ordre.
8. Plaza de Lorea.
9. Plaza de las Artes.
10. Plaza del Parque.
11. Plaza de la Libertad
12. Plaza del Marte.

which merchandise has to be conveyed by lighters and from them by ox-carts. The commerce is extensive and increasing, and with the opening of the country to foreign enterprise it will, without doubt, become a great mart. Buenos Ayres was founded in 1580, and in 1776 became the seat of a viceroyalty. Population 122,000.

30. Parana or Bajada, on the east bank of the Parana, 238 miles north from Buenos Ayres, is capital of the Confederation, and a busy commercial town of 15,000 inhabitants. About eight miles farther up, and on the opposite side of the river, and immediately above the confluence of the Salado, is Santa Fé, capital of the province of the same name, with 4,000 inhabitants. Rosario, in the south of the same province, is also an important town, and will eventually be connected with Cordova and the interior by a railroad. Corrientes is situate on the east side of the Parana, and immediately below the confluence of the Paraguay. It contains about 8,000 inhabitants. These towns, with several others on both sides of the river, are destined to become active commercial centers, and have already a considerable commerce with Buenos Ayres and Montevideo. On the Uruguay are the ports of Gualeguaychu, Concepçion, Concordia, and Federaçion.

31. Cordova is situate in a beautiful valley on the Primero, and is noted for its ancient university, now much reduced. It is the center of communication between Buenos Ayres and the upper provinces. Population 14,000. Rioja, at the foot of the Sierra de Velasco, has a neighborhood rich alike in agricultural and mineral resources. The veins of silver ore in the Famatina Mountains are said to equal those of Potosi. Population 8,800. Santiago del Estero, a town of 4,000 inhabitants, is situate on the west bank of the Rio Dulce, and manufactures ponchas and blankets. Tucuman, 94 miles north, and on the same river, is noted for its cathedral and college, and has a trade with Bolivia in oxen and mules, and also manufactures of leather and cotton and woolen goods. It was here that the first republican congress was held, and which in 1816 proclaimed the independence of the provinces. Population 8,000. Catamarca, a town of 4,000 souls, about 86 miles southwest of Tucuman, has a considerable trade in cotton and red pepper, which are grown in the vicinity. Salta, on an affluent of the Salado, 180 miles north of Tucuman, has a college and numerous religious institutions. The province of which it is capital produces cocoa, cotton, sugar, indigo, and other tropical staples, and *yerba-maté* or Paraguay tea grows wild. Population 9,000. Jujuy and Oran, on the upper waters of the Vermejo, are also considerable towns. In the western part of the province there are rich mines of copper and silver.

32. The capitals of the southern provinces are San Juan, Mendoza, and San Luis. San Juan de la Frontera, with 8,000 inhabitants, is pleasantly situate on the River San Juan, which empties into the large lake of Guanacache; and Mendoza, with 12,000 inhabitants, on a high plain, near the morass of the same name. Both are frontier towns, and are the centers of considerable trade between Buenos Ayres and Chile, the communication between which is by the passes of Uspallata and Portillo. The mountains bordering the west of these provinces abound in mineral wealth. San Luis de la Punta is an insignificant town on an affluent of the Belvidere lakes. The most southern town is Carmen, at the mouth of the Rio Negro. Besides the towns specially noted, there are others perhaps no less worthy of attention; but the greater number of the places marked on the map have either no existence in reality, or are simply the names of estancias or other private properties.



PLAZA IN MENDOZA.

33. The wide estuary of La Plata was discovered by Juan Diaz de Solis, in 1512, and taken possession of for the crown of Spain. In 1530 Sebastian Cabot was sent to make discoveries in South America. He traversed the Plata, the Parana, and Paraguay; and the favorable accounts he gave of the country called Paraguay induced the Spaniards in 1534 to send a considerable force to these parts under Pedro de Mendoza, who built a fort near the present site of Buenos Ayres, and then sailing to Paraguay, founded the town of Asunçion. The fort was soon destroyed by the Indians; but concentrating on Asunçion, the Spaniards gradually began to establish settlements over the country. In 1573 Juan de Garay founded Santa Fé, and about the same time other Spaniards from Upper Peru advanced southward and founded Salta, Tucuman, and Cordova. Buenos Ayres was founded by Garay in 1580. All the countries thus conquered were joined to the viceroyalty of Peru, of which they formed a portion until 1776, when Buenos Ayres was divided from it and constituted a separate viceroyalty.

34. Early in the seventeenth century the Jesuits entered the country. Their progress was at first slow, but after the year 1692, when they obtained more extended privileges, the conversion and civilization of the Indians of the Parana went on rapidly; and about the middle of the last century it was stated and believed that the Jesuits had succeeded in forming a powerful state. On the suppression of that society, in 1768, it was found that the country was inhabited by about 100,000 peaceful and industrious Indians; but from that time the missions, as they were called, greatly decreased in population. The attempts to civilize the tribes of the northern provinces were not so successful; yet the Spaniards suffered less from their incursions than from the attacks of the southern Indians, who, from the time they had obtained horses, adopted a new life, and by their frequent incursions laid waste the neighboring settlements. In 1740, however, a compact was made with them, by which the Salado and the 35th parallel were made the division between the territories of the Indians and the Spaniards respectively.

35. On the expulsion of the royal family from Spain, the Spaniards of this country did not submit to the Bonaparte king, but in 1810 organized a new government in the name of Ferdinand VII.

36. From 1813 to 1816 the "Sovereign Assembly" had the chief power, and its meetings were held at Tucuman, which was the seat of government. In April, 1816, a general congress was called, which, on the 9th July, declared the independence of the "United Provinces of the Rio de la Plata." Gen. Puyerredon was named supreme director, an office which lasted till 1820. For the next four years the provinces remained in an isolated position, when another general congress was called; and in 1826 this body promulgated a constitution, the seventh article of which declared that the "Argentine nation adopts for its government the republican representative form, consolidated in a unity of representation." This, known as the *Unitarian Constitution*, lasted a very short time. The several provinces withheld their approval, civil war again raged, and in 1827, the congress having been dissolved, the provinces returned to their state of isolation.

37. In January, 1831, the provinces of Buenos Ayres, Entre Rios, Corrientes, and Santa Fé entered into a federal compact, to which all the other provinces at subsequent periods became parties. The union was a voluntary alliance, and no general constitution was promulgated. The "Argentine Confederation" thus formed, like the republic it had succeeded, soon fell into a state of anarchy; and it was not until the election of Rosas, as governor or captain-general, with almost absolute power, in 1835, that even temporary quiet was secured. By this arrangement the provincial government of Buenos Ayres was charged with the transaction of all matters appertaining to the common interests of the Confederation and the carrying out of its business with foreign nations.

38. The decision and energy of this man for a while secured internal peace; but cruelty and despotism marked his sway at home, and his ambition led him into disputes with foreign powers, and these ultimately brought about his downfall. His commercial policy had for its object to secure to Buenos Ayres the monopoly of the trade of the Plata—his political policy to obtain a like territorial superiority. Such policy was followed by war, and in this the countries on both sides the river became involved, and ultimately both England and France joined the combination against the tyrant, and in 1850 Brazil determined on active interference. The power of Rosas, essentially despotic, had moreover become intolerable to the provinces which desired a federal and equal union. With a firmness worthy a better cause, Rosas still refused to yield; and accordingly, in 1850, Brazil, Uruguay, and Paraguay entered into a treaty with Corrientes and Entre Rios, as represented by General Urquiza, and became parties by which they bound themselves to continue hostilities until they had effected his deposition, declaring his "power and tyranny incompatible with the peace and happiness of this part of the world." Early in 1851 a Brazilian fleet blockaded Buenos Ayres, and soon after an army of 70,000 men, under Urquiza, crossed into Buenos Ayres, and on the plains of Moron, 2d February, 1851, the Buenos Ayrean army was signally defeated. Rosas himself escaped and sailed to England; and the struggle virtually terminated.

39. On the 20th May, 1852, a convention met at San Nicolas de los Arroyos and formed the nation into a confederate Republic, without prejudice to state organizations. In 1853 Buenos Ayres seceded from the compact and formed itself into an independent state; and on the 13th October of the same year Pastor Obligado was inaugurated governor and captain-general. General J. J. Urquiza, who had hitherto exercised supreme power in the new confederacy, was elected president on the 20th of November, fixing the seat of government at Parana pending the non-adhesion of Buenos Ayres. Among the many wise acts of the Urquiza government, the opening of the rivers to the vessels of all nations will ever hold a conspicuous place in history. Buenos Ayres, in the meanwhile, has returned to its ancient exclusive policy, and persists in the acknowledgment of a supremacy over the other states, as unwarrantable as its exercise would be despotic.

[*Weight, Measures, and Moneys.*—Same as in Spain.]

REPUBLIC OF PARAGUAY.

1. Paraguay originally included the immense regions between latitude 16° south and the Straits of Magalhaens, and between Chile and Peru on the west and Brazil on the east. The name, however, is now applied to the Republic so-called, extending from latitude 21° 20′ to 27° 18′ south, and from longitude 54° 20′ to 58° 45′ west. The space thus defined forms a very compact territory, nearly in the shape of a parallelogram, about 420 miles long, north and south, with an average breadth of 180 to 200 miles. The area is computed at 72,106 square miles.

2. On the north its limits with Brazil are only vaguely ascertained; but in all other directions it enjoys the advantage of well-defined natural boundaries—the Parana on the east and south, and its great tributary the Paraguay on the west. The whole surface thus belongs to the basins of these two rivers, a mountain range of considerable elevation stretching between the north and south so as to form their watershed and send the drainage in opposite directions and in nearly equal proportions.

3. The distance of the watershed from the rivers scarcely anywhere exceeds 100 miles, and hence the tributaries by which the drainage is conveyed are more remarkable for their number than for magnitude. By far the largest is the Tibicuary, which, owing to an easterly

bend in the range, has its course considerably prolonged, and being augmented by several large affluents from the north, becomes a noble stream before it reaches the Paraguay.

4. The surface, as already indicated, is mountainous in the center, and also in the northeast, where a ramification, known by the name of the Sierra-de-Maracay, breaks off from the central chain, and, proceeding east to the banks of the Parana, interrupts the navigation of that river, and forms one of the most remarkable cataracts in the world. The river, which above the rapids is 12,600 feet wide, begins to force its way through a deep, narrow gorge, and, becoming suddenly contracted to 180 feet, pours down an immense flood with tremendous fury, and a noise which is heard at the distance of 18 miles. Below this, to the western bend of the river, falls and rapids succeed each other, but in its lower course navigation is uninterrupted. From the mountain region the surface rapidly descends, first presenting a finely-diversified succession of lower heights, and then spreading out into rich alluvial plains, which not unfrequently in the immediate vicinity of the larger streams are converted into swamps and morasses.

5. The climate, though part of the country is within the tropics, has its excessive heat greatly modified by the inequalities of the surface, but concurs with the natural fertility of the soil in producing a vegetation of great luxuriance and grandeur. Unlike the open countries surrounding it, Paraguay is well-wooded, and among its trees are many valuable in the arts and manufactures. It also abounds in medicinal products, as rhubarb, sarsaparilla, jalap, sassafras, dragon's blood, copaiva, nux-vomica, liquorice, ginger, etc., and in dye-stuffs in immense variety, as cochineal, indigo, vegetable vermilion, saffron, etc. Many of the forest trees yield valuable gums, and they comprise some of the most delicious perfumes and incense that can be imagined; others, again, are like amber, hard, brittle, and insoluble in water. The *seringa* or rubber-tree, the products of which are now almost a monopoly with Para, and also the *palo-santo*, which produces the gum guiacum, crowd the forests, and the sweet-flavored vanilla is abundant. Upon the hills the celebrated "yerba-maté" (*ilex paraguensis*) flourishes luxuriantly. The plains pasture thousands of cattle, which, though scarcely required for food in a country otherwise so richly provided, yield invaluable products in the shape of hides, tallow, hair, horns, bones, etc.

6. Thus in all that constitutes an agricultural country—rich lands, a fine climate, and abundance of water—Paraguay has scarcely an equal. On all the alluvial tracts where cultivation is attempted with implements however primitive and imperfect, sugar-cane, cotton, tobacco, rice, maize, and, in short, the greater part of the most valuable products of the tropical and temperate zones are raised in profusion. If fully developed, indeed, this country would probably furnish a larger amount of human subsistence than any other tract of equal extent on the surface of the globe. Hitherto, however, and unfortunately, various political causes have seriously interfered with its advancing prosperity, and its future can only be measured from its resources and facilities.

7. The wild animals of Paraguay include the jaguar or tiger (of which there are great numbers), the puma or cougar, called also the American lion, the black bear, and ant-eater, the tapir, the capibara or water-pig, river cavies, and various other amphibious animals. Alligators are numerous in the Rio Paraguay and of immense size. The wild boar, deer, and other species of animals less known, inhabit the forests. Snakes, vipers, scorpions, etc., abound, and it is estimated that there are twenty different kinds of serpents, of which the rattlesnake is the most common. The boa-constrictor is found in the river swamps. Among the feathered tribes are the cassowary or American ostrich, the peacock, parrots of various species, papagayos, parroquets, goldfinches, nightingales, and nine species of the humming-bird. Wild geese abound on the rivers and lakes, and there is also a bird called the toucan, resembling the crow, but having a very long beak, which is beautifully variegated with streaks of red, yellow, and black. Insects are found in great variety and of extraordinary size.



INDIAN FROM THE GRAN CHACO.

8. The mineral resources of Paraguay are unknown, but it is supposed that both the precious and more useful abound. About 17 leagues from the capital is a mountain called Acai, near which the inhabitants frequently find small lumps of silver. The policy of the government, however, has ever been to disclose as little on the subject as possible, and on one occasion a watchmaker who had extracted gold from some ore found in the interior, was commanded by Francia not to mention the circumstance on pain of death.

9. Authorities differ in estimating the amount of population in the country. Some say 300,000, others 1,000,000, and still others make it 1,200,000. The smallest estimate would make it more populous than is usual in South American states. The dominant inhabitants are the descendants of Europeans from the north of Spain. Caste here is carried to a great extent, and the feeling of aversion which the white population entertain toward the natives even the despotic power of Francia was unable to break down. Of the aboriginal tribes, the Guaranis, who inhabit the Chaco, are the most numerous. The Payaguas, inhabiting the left bank of the Paraguay River, are chiefly porters. A tribe called the Tobayas are a common enemy, and the government has often to make vigorous efforts in order to repel their inroads. Dr. Francia, however, appears to have succeeded in bringing these people into a more perfect state of civilization and subordination than has ever before been done with any nation of American aborigines. The number of Indian villages and missions is very considerable. They generally consist of stone or mud houses, covered with tiles, and have a large square in the center, in which is the priest's house and a church; the number of inhabitants in each being seldom less than 600, and often exceeding 2,000.

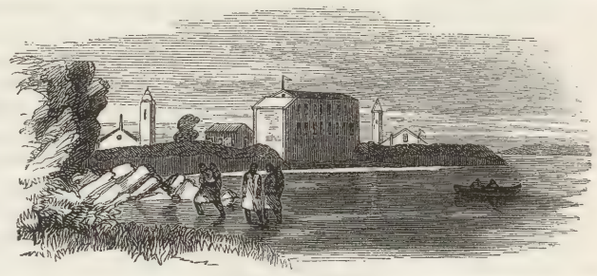
10. The religion of the country is the Roman Catholic, and none other is allowed to be publicly practiced. Schools exist in every section of the Republic, and the people are generally better educated than their neighbors in the bordering provinces. Every white male child, indeed, is obliged to attend the parish school until it has acquired the first rudiments of an education. The public press consists of only two small weekly newspapers, which circulate about 360,000 copies annually. The Paraguayo, issued at Asunçion, is the government organ.

11. The industrial condition of Paraguay is probably superior to that of any other of the Spanish American states. Secluded from commercial intercourse with foreign countries, the inhabitants have for centuries been obliged to supply their own wants. Thus all the common handicrafts are known to them, and under Francia every one was obliged to labor at some useful occupation. Nothing whatever, under his regimé, was brought into or carried from the country. Since 1852, however, a new element has been added to the national industry, viz., external commerce, which has already changed materially the aspect of affairs, and is constantly advancing in value. In the years 1852, '53, and '54 the interchanges are reported at the following sums:

	1852.	1853.	1854.
Imports	$540,000	$407,000	$860,000
Exports	479,000	699,000	976,000
Total	$1,019,000	$1,106,000	$1,636,000

The exports consist altogether of the raw materials of the country; the imports, chiefly from France and England, of manufactured goods.

12. The only town of consideration in the Republic is Asunçion, the capital. It is situate on the left bank of the Paraguay, a short distance above where it is joined by the Pilcomayo, 660 miles above Buenos Ayres. Lat. 25° 18′ south, and long. 57° 35′ west. Originally a small Spanish fort, it has now become a place of some importance, and contains about 12,000 inhabitants. This is due to its advantageous position. It has a cathedral, three churches, four convents and monasteries, a college and theological seminary, and a hospital. Otherwise it is an ill-built and irregular town, most of the houses being built of mud, and the streets crooked and unpaved. The inhabitants carry on a considerable trade in tobacco, timber, hides, and sugar, and especially in *maté* or Paraguay tea, from which the almost universal beverage of South America is made.



CABILDO AT ASUNÇION.

13. North of Asunçion are the towns of Castillo, Rosario, Concepçion, and Itapucumi on the river, and San Pedro, Tacuati, and Curuguaty in the interior; and south of the capital Villeta, Olivia, and Pilar. In the interior, toward the southeast, are Villa Rica and several other small towns, and on the Parana, near its southernmost bend, Encarnaçion, Carmen, etc. These have populations varying from a few hundreds to one or two thousands, chiefly civilized Indians.

14. Paraguay was formerly a province of the viceroyalty of Buenos Ayres. The dismemberment of the viceroyalty took place at the close of 1813. It began with Paraguay; but, strictly speaking, this Republic could at no time be said to have formed a portion of the United Provinces, as created by the patriots. It never joined in any confederacy with them; but at once, in 1811, established on the ruins of the Spanish power an independent government; and secured its independence from colonial vassalage more by the advantages of isolated position, than by any exertion on the part of the inhabitants.

15. Dr. Francia, whose history is that of the Republic from the period of its independence, began his political career as secretary to the revolutionary junta in 1811. He afterward became joint consul, and then sole consul, and in 1814 he was elected dictator for three years. In 1817 he caused himself to be elected dictator for life. From this time he adopted as his established principle perfect non-intercourse with all the world; and his government became more and more despotic at home, and the more of a curse to the country. His tyranny, justly regarded as one of the most remarkable political phenomena of modern times, was maintained by a system of espionage so rigorous, and at the same time so widely spread, as to bring fear and distrust into every household.

16. Robertson says that ten years before his death "the prisons were groaning with their inmates, commerce was paralyzed, vessels were rotting on the river-banks, produce going to decay in the warehouses, and the insolence of his soldiers was systematically encouraged as the best means of striking terror into the hearts of the crouching and insulted citizens; distrust and fear pervaded every habitation, the nearest friends and relations were afraid of each other, despondency and despair were written on every countenance you met, and the only laughter heard in the city was that of Francia's soldiers over their revels in the barracks, or their exultation over the affronts offered to unoffending citizens in the streets."

17. At length, as full of years as of crime, Francia expired at the age of eighty-two—one of the few tyrants who have quietly died in their beds at a good old age and in the plenitude of their power. He left his country impoverished of its precious metals, not a dollar in the treasury, and not a public or private paper of his administration unburned.

18. After the death of Francia a popular congress elected again two consuls to serve for two years, and the people once more breathed the free air of liberty. The first acts of these magistrates were to declare the nation open to foreigners and commerce. In 1844 a constitutional government was established, at the head of which, as president, is Carlos Antonio Lopez, who has continued and expanded the policy inaugurated by the consulate. The benefits of this liberal arrangement, however, have been in a great measure frustrated by the selfish policy of the government of Buenos Ayres, which, taking undue advantage of its command of the outlet of the Parana, had hitherto been too successful in crippling the trade, not only of Paraguay, but of the extensive regions beyond it, abounding in valuable products, to which the Parana and Paraguay furnish the only available means of transport.

19. This exclusive policy provoked a wide resistance, which was aided by France and England, and resulted in the defeat and flight of Rosas, the dictator of that province, in Feb-

ruary, 1852. This event at once changed the condition of affairs. On the 1st October, 1852, in accordance with a decree of the provisional director of the Argentine Confederation, dated 31st August, the navigation of the Rio de la Plata, the Parana, and Paraguay was opened to all foreign vessels, and on the 13th October the representatives of the province of Buenos Ayres recognized the authority of the decree. Thus the great rivers, after being closed to general commerce from the first occupation of the country by the Spaniards, are declared free. The consequences of this important concession are in the future, but there can be no doubt of its being the cause of an early development of the country.

20. The independence of Paraguay was recognized by General Urquiza, provisional head of the Argentine Confederation, on the 17th July, 1852; and on the 4th January, 1853, a treaty of recognition and commerce was signed at Asunçion on the part of Great Britain.

[*Weights, Measures, and Moneys.*—Identical in denominations with those of Spain.]

REPUBLIC OF URUGUAY.

1. URUGUAY, or, as it is sometimes called, the "Banda Oriental del Uruguay," lies northeast of the estuary La Plata, and is bounded on the north by the Brazilian province of Rio Grande do Sul. Its western boundary is the Rio Uruguay, which separates it from the Argentine province of Entre Rios. Its eastern boundary is the Atlantic Ocean.

2. In shape an irregular quadrangle, Uruguay has a general length, north and south, of about 380 miles, and its greatest breadth, which occurs near the parallel of Paisandu, measures about 260 miles. From the latter point it narrows gradually northward to less than 100 miles. The area of the country may be estimated at 73,538 square miles.

3. Uruguay may be regarded as a vast undulating plain, generally flat toward the great river from which it takes its name, and also toward the estuary La Plata and the Atlantic. In the interior, however, this general characteristic of the country is broken by the appearance of several ridges of moderate elevation, which are composed for the most part of clay-slate, gneiss, and granite, and form the watersheds of the more important rivers; these are—the Negro, by far the largest, which, rising on the northeast frontier, in the Sierra-Tecla, flows southwest to its junction with the Uruguay, and divides the Republic into two nearly equal portions; the Ibicuy on the northern frontier, the Guarey, the Arapey, the Dayman, and the Queguay, all also tributaries of the Uruguay; the Santa Lucia and San José, which unite their streams and fall into the La Plata about 10 leagues west of Montevideo; and the Cebollati with its numerous affluents, and the Aguarore, the two most important feeders of the large Lake of Mirim, which is situate on the frontier, partly in Brazil, and, after the rivers, forms the most important hydrographical feature of the country.

4. The climate is mild and equable; and the country proverbially salubrious. The extensive plains, covered with a rich turf, and almost destitute of trees, are admirably adapted for agriculture, and still for the most part remain in a state of nature, forming a rich pasture for immense herds of horses and cattle. These are the chief wealth of the country, and supply large quantities of hides, skins, jerked beef, horns, etc., for export. The only mineral that has been successfully worked is copper.

5. For administrative purposes the Republic is divided into nine departments, the names and approximate population of which, in 1829, were thus stated:

Departments.	Population.	Departments.	Population.
Montevideo	23,404	Paysan del Salto (Tacuorembo)	27,900
Guadalupe (Canelones)	7,800	Cerro Largo	10,100
San José	8,080	Maldonado and Minas	21,296
Colonia del Sacramento	9,706	Durazno	6,826
Soriano	13,200		

—this would give the country a population of 128,312, but there has of late years been a considerable immigration, chiefly from France, and at the present time it is supposed that the total number of inhabitants can not be less than 160,000.

6. The government is an integral republic, with a senate and house of representatives, the members of the former being elected for six years, and of the latter for three years. The executive power is exercised by a president elected for four years. He is assisted by three ministers. The revenue for 1856 was estimated by the minister of finance at $2,132,800, and the expenditures at $3,280,745. In 1853 the public debt amounted to $10,000,000.

7. There are only three towns of any importance, namely—Montevideo, La Colonia, and Maldonado; but besides these there are 15 smaller towns and 8 pueblos, exclusive of estancias and ranchos. Montevideo is the capital of the Republic and the principal commercial seaport. It is situate on the north coast of the estuary La Plata, 130 miles east-southeast from Buenos Ayres, and in latitude 34° 53′ south, and longitude 56° 15′ west. Its site is a gentle elevation at the extremity of a small peninsula, surrounded by a strong wall mounted with guns, and further defended by a citadel or castle, with bulwarks and batteries. The town is generally well-built, and the houses usually of one story, flat-roofed, and floored with adobes. There are no public buildings deserving notice except the Cathedral, which is a handsome structure of stone. There is also a town-house. The harbor is shoal, having only from 14 to 19 feet water, but the bottom being very soft, vessels receive no damage by grounding; it is also exposed to the south-southwest winds, which blow right into it and cause a considerable sea. The chief trade is in hides, tallow, and jerked beef, valued at about $6,500,000 a year, the first two are sent chiefly to Europe, and the last to the West Indies. The imports consist principally of cotton and woolen goods, hardware, provisions, wines, etc., to the value of $8,000,000. In 1855 there entered the port 625 vessels (127,149 tons), and cleared 648 vessels (134,898 tons), principally British, French, Spanish, Brazilian, and United States shipping.



CATHEDRAL OF MONTEVIDEO.

It is one of the most famous nests of speculators in the whole of South America. Population 12,000. In front of the town, and at no great distance, are several small islands.

8. Maldonado lies 72 miles east of Montevideo. Latitude 34° 53′ 30″ south, and longitude 54° 57′ 48″ west. The town, about two miles from the shore, is built on the brow of a hill, gently descending, 250 feet above the sea-level. The principal buildings form a quadrangle, including the new church. The habitations are of brick, and covered with straw thatch; but the houses in the streets issuing from the square are low, and constructed of earth. La Colonia is a fortified sea-port on the north bank of the estuary of Plata, opposite Buenos Ayres. Latitude 34° 28′ south, and longitude 57° 49′ 45″ west.

9. Banda Oriental was the name of that portion of the viceroyalty of Buenos Ayres which was situated to the east of the River Uruguay, and comprehended the present Republic of Uruguay and the country formerly called the Seven Missions. Lying between the great body of the Spanish possessions and Brazil, it was, at the commencement of nearly every war between the Spaniards and the Portuguese, occupied by the latter, but at the conclusion of peace entirely or in part restored to the former.

10. When Buenos Ayres declared itself independent of Spain, the whole of the Banda Oriental was included in the then viceroyalty; but the continual civil wars by which the declaration of independence was followed in Buenos Ayres, induced the government of Brazil, in 1821, to take possession of the Banda Oriental, which was united to Brazil under the title of Provincia Cisplatina (province on this side of the Plata). The Republic of Buenos Ayres protested against this step, and as no amicable settlement could be made, a war began between the two countries in 1825, which was terminated by a treaty of peace in 1828. By the articles of this treaty the northern district of the Banda Oriental or the Seven Missions was incorporated with the Empire of Brazil, and the southern or larger part declared an independent republic, which took the name of the Republic of Uruguay.

[*Weights, Measures, and Moneys.*—Identical in denominations and values with those of Spain.]

PATAGONIA, TIERRA DEL FUEGO, ETC.

1. PATAGONIA, the extreme southern portion of the continent of South America, extends from the Rio Negro and the Gulf of Ancud, or from latitude 39° to the Strait of Magalhaens, in latitude 53° south, about 970 miles, with a width varying from 420 to 200 miles. It comprises two distinct physical regions, differing in surface and climate—the one lying on the west side of the Andes, and the other on the east, and called respectively Eastern and Western Patagonia. The former is claimed by Chile and the latter by the Argentine Confederation; but as yet both sections are inhabited by aboriginal races. The area of the whole surface may be computed at 300,000 square miles.

2. Western or Chilean Patagonia comprehends a number of large islands extending along its whole coast, the principal of which are the islands Wellington, Hanover, Adelaide, etc. All these are high and rocky, rising from the shores with a steep acclivity. The coasts which front the Pacific are bare, being almost continually washed by rains and beaten by violent winds; but those parts that lie opposite to the mainland are wooded, and in some places the trees are high and of vigorous growth. In direct contrast to Eastern Patagonia, the western division is wholly a mountainous region; the mountains half sunk in the ocean, barren to seaward, and impenetrably wooded inland. The climate is so disagreeable as to render the country almost uninhabitable. Clouds, wind, and rain are continual, and the drenched land is never dried by evaporation before fresh showers fall. No part is cultivated—the inhabitants living on their horses and by the chase of the wild cattle, which are found in the northern districts. There is, however, a flourishing Chilean settlement at Port Famine, on the Strait of Magalhaens.

3. Eastern or Argentine Patagonia, though generally low and level, is not one universal

flat, but a succession of shingly horizontal plains or pampas, at higher and higher levels, separated by long lines of cliffs or escarpments. The ascent, however, is but slight, being not more than 3,000 feet above sea-level at the foot of the Andes. These plains, strewn through their whole extent with huge boulders, are dreary and sterile, and though here and there intersected by streams, the latter fail to fertilize the blighted soil. The shingle which overlies the plains for many feet in depth consists of myriads of pebbles, chiefly of porphyry, which have been torn from the rocks of the Andes and waterworn at a period subsequent to the deposition of the tertiary strata which they overlie.

4. On the east coast the tides rise from 30 to 50 feet, increasing in height from north to south; but there are few good or easily accessible ports. The best known ports are—Gallegos, in 51° 38′; Santa Cruz, in 50° 7′; San Julian, in 49° 12′; Desire, in 47° 5′; Nuevo Golfo, in 43°; and San Antonio, in 41° south.

5. The climate, especially south of 45°, is very cold—frost frequently occurring as soon as the sun has passed north of the equator. The heat of the summer, however, is excessive. Rain falls only in the winter months. Vegetation is nearly extinct, a tree or a spot of green herbage appearing here and there only. In some hollow places and ravines a few dark-looking, shrubby bushes grow; but no trees can be discerned over the wide stony plains. In the more northern parts a solitary umbū, the only tree that grows there, is seen at vast distances. In these parts, however, there is a scant vegetation; and guanacos, cavias, armadilloes, and emus abound. There are also pumas, wolves, and dogs; and along the coast of the Atlantic seals of various kinds are met with. Fish abound in the seas, bays, and inlets.

6. The aboriginal natives, though by no means so large as they have been described, are a tall and extremely stout race. Their bodies are bulky, and their heads and features large; but their limbs are neither so muscular nor so large boned as their height and apparent bulk would induce one to suppose. Their color is a rich reddish brown. In general the women's features and physiognomy so nearly resemble those of the men that, except by their long hair, it is difficult for a stranger to distinguish them. The mouth is large and coarsely formed, with thick lips, but the teeth are generally good. As a race they are of good disposition, but reckless in moments of passion. They are excellent horsemen, and perform extraordinary feats of dexterity on horseback. Their arms are slung balls, lances, and bows and arrows. None of the native tribes have been subjugated.



NATIVES OF PATAGONIA.

7. Patagonia was discovered by Magalhaens in 1519. The origin of the name has been disputed. Magalhaens called the natives Patagones, because their shoes resemble the hoofs of the guanaco. *Patagon*, in Spanish, signifies one who has large feet. Others insisted that their ordinary stature exceeded seven feet, and on that account they were called Πενταγκωνες, or men of five cubits; the last is the most probable derivation of the name of the country.

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8. The Strait of Magalhaens or Magellan separates the continent from Tierra del Fuego, and thus forms a communication between the Atlantic and Pacific oceans. The entrance from the former is in about latitude 52° 30′, between Cape Virgins and Cape Espiritu Santo; and from the latter in nearly the same parallel, between Cape Victory and Cape Pillar. The channel is upward of 300 miles long, and is of difficult navigation. The east entrance is about 15 miles wide; but shortly afterward expands to about 35 miles, again narrows to a little more than 2 and 3 miles, and then widens to about 20 miles. From this point it presents for about 60 miles a large expanse of water, varying from 20 miles to upward of 50 miles in breadth. The width of the remaining portion, being much obstructed by islands, can not be well stated, sometimes not exceeding 200 fathoms; but near the west entrance it widens to about 20 and 25 miles. Near the center of the strait, in the vicinity of Port Famine, a vein of coal has been discovered. In this locality the mountains rise precipitately to a height of 3,000 and 4,000 feet above the sea-level. The tides of the straits reach a height of 50 feet, the highest point they attain on the Patagonian coast. This channel between the two oceans was discovered in 1519 by Fernando Magalhaens, who sailed through it.

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9. Tierra del Fuego is the name given to the extensive group of islands or archipelago lying south of the Strait of Magalhaens, and forming the southern extremity of South America. It is situate between latitudes 52° 30′ and 55° 59′, and longitudes 63° 40′ and 75° 7′ west. On the north it is separated from the mainland of America by the long and intricate Strait of Magalhaens, while its other sides are washed by three great oceans—the Atlantic on the east, the Pacific on the west, and the Antarctic on the south.

10. Besides numberless small islands, of which Cape Horn, at its southern extremity, may be mentioned as one of the most remarkable, it consists of one very large island, Eastern Tierra del Fuego or King Charles' South Land, measuring east and west, near its south shore, 500 miles, with a maximum breadth, north and south, of 300 miles; and of four much smaller, but still very considerable islands—Navarino and Hoste on the south, separated from Eastern Tierra del Fuego by Beagle Channel, and Clarence and Desolation on the west.

11. The whole of these islands are penetrated deeply by arms of the sea, which give them the most irregular shapes, and are almost entirely composed of mountains of clay slate, greenstone, and granite. These mountains are either covered with perpetual ice and snow—which has here its limit at about 4,000 feet, while many of their summits exceed 5,000 feet, and Monto Sarmiento, in the southwest part of the largest island, supposed to be the culminating point, has an elevation of 6,900 feet; or—are clothed with stunted forests, chiefly of beech, growing out of a swampy peat, apparently almost the only kind of soil in this region, and which beyond 1,000 to 1,500 feet, where the trees cease to grow, becomes covered with minute Alpine plants.

12. The term, Land of Desolation, which Cook applied to the large western island, is strictly applicable to the whole group; and yet the scenery, when mountain is seen rising behind mountain, with deep intervening valleys, all covered by a thick dusky mass of forest, is not without a degree of mysterious grandeur. At times, too, magnificent glaciers of beryl-like blue, in fine contrast with the white expanse of snow, are seen descending from the mountain sides to the water's edge. The climate is one of the most wretched which it is possible to imagine—fog, rain, and snow, accompanied either with continued storms or violent and sudden gusts of wind following each other in constant succession.

13. This kind of climate, uncongenial as it is to plants of warmer latitudes, is far from being unfavorable to native vegetation; and hence in some places large woody-stemmed trees of fuschia and veronica, which in the United States are treated as tender plants, were seen in full flower not far from the base of a mountain with two thirds of its height covered with snow, and with the temperature at 36° Fahr. The only other vegetable production particularly deserving of notice is a globular fungus, of a bright yellow color, and the size of a small apple. It adheres in vast numbers to the bark of the beech trees. When young it is elastic and turgid with moisture; but after fructification, shrinking and growing tough, acquires a mucilaginous and slightly sweet taste. In this state it is eaten by the natives uncooked, and forms a staple article of food, being, with the addition of a few berries of dwarf arbutus, the only vegetable of which they partake.

14. Another remarkable vegetable production is the sea-weed called *fucus-giganteus*, which, though not confined to this group, is here particularly abundant, forming great aquatic forests, and furnishing the haunts of innumerable species of shellfish, but for which the race of Fuegans could scarcely exist. The zoology of the group, however, is very scanty. Besides cetacea and phocæ, the only mammalia are—a bat, three species of mice, the fox, sea-otter, guanaco, and deer. Birds, particularly sea-fowl, are numerous; and even humming-birds have been seen nipping the sweets of flowers after two or three days of constant rain, snow, and sleet, during which the thermometer had been at freezing-point.

15. The natives of the northeast part of Tierra del Fuego resemble the Patagonians in color and stature. Those of the southeast portion are low in stature, ill-looking, and badly proportioned. Their color is that of very old mahogany, or rather between dark copper and bronze. The trunk of the body is large in proportion to their cramp and rather crooked limbs. Rough, coarse, and extremely dirty, their black hair half hides yet heightens a villainous expression of the worst description of savage features. The women are short, about four feet seven inches, with bodies also largely out of proportion to their height, and their features, especially those of the old, are most repulsive. Their only clothing is a scanty covering of guanaco, or seal skin. In their habits they are most filthy, and in feeding gross and uncleanly, the most offensive substances being eaten in a state of putridity. They are, like many other savages, extraordinary mimics, imitating all sorts of sounds and motions with marvelous and most amusing fidelity. Their huts are generally found close to the shore, at the head of some small bay, secluded and sheltered from the prevailing winds. They are built of boughs or small trees stuck in the earth and brought together at the top, where they are firmly bound by bark, sedge, and twigs. The usual dimensions of these huts are seven or eight feet in diameter and about four or five feet in height, having an oval hole to creep in at. The fire is built in a small excavation in the middle of the hut. The floor is of clay, which has the appearance of having been well kneaded. Tierra del Fuego received its name from the discoverers, who observed "fires" on the land during the night, and which they supposed to be volcanic. This opinion was subsequently verified.



NATIVES OF TIERRA DEL FUEGO.



CAPE HORN.

16. The importance of Cape Horn as a maritime beacon demands for it a more extended notice than any point of the whole group. The cape is situate in latitude 55° 59′ and longi-

tude 67° 16′. This promontory forms the most southern point of Hermit's Island, which itself is the most southerly of the islands belonging to the archipelago of Tierra del Fuego. It is a lofty, dark, precipitous headland, from 500 to 600 feet high, running far into the sea. Its summit is usually crowned with snow, and its sides are clothed with a brownish colored vegetation. The strong gales from the west render the doubling of the cape from the east a matter of some danger and difficulty; but the improvements in modern navigation have greatly diminished both. Gales from the west blow during the summer nearly without interruption, but only near the cape. A few degrees farther south they are more variable. During the winter easterly winds are more frequent, but the navigation is then rendered dangerous by the icebergs which approach the cape, and which are found even farther north. The cape was first doubled in 1616, by the navigator Schouten, a native of Hoorn, in Holland, who named it after the town in which he was born, and hence its present name Horn is simply a clerical corruption of the original.

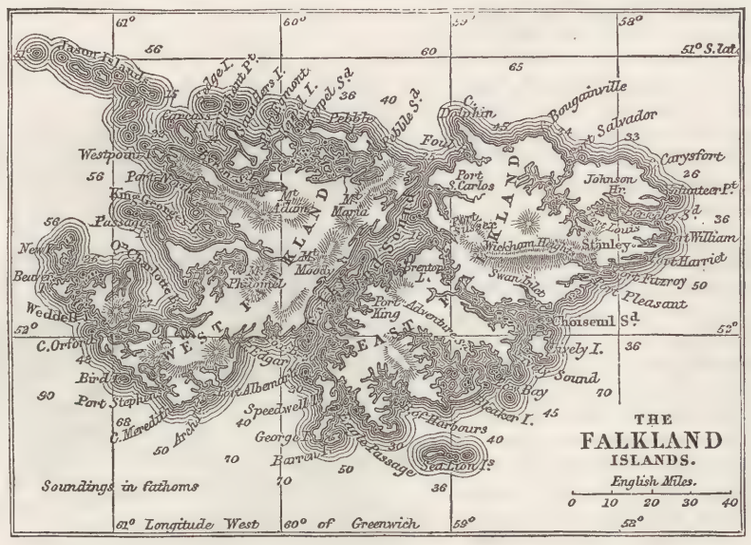
17. Tierra del Fuego, in common with Patagonia, was discovered by Magalhaens in 1519, and in consequence of the number of fires seen along the shores by that navigator was so named. Anglicized the name signifies "Land of Fire." There is no possibility of ascertaining even an approximate enumeration of the inhabitants of the group; but analogically it is presumed to be small.

FALKLAND ISLANDS.

1. The Falkland Islands, called by the French *Malouines*, and by the Spaniards *Malvinas*, are a group in the Atlantic Ocean, consisting altogether of about 200 islands, large and small, and lie between latitudes 51° and 53° south, and longitudes 57° and 62° west, about 250 miles northeast of Tierra del Fuego. Only two of these islands are of considerable size, namely, East Falkland and West Falkland, separated from each other by a sound varying in breadth from 2 to 18 miles. East Falkland is about 85 miles in length, and about 53 in breadth; area 3,000 square miles. The other islands vary from 16 miles in length by half that extent in breadth, to mere islets of half a mile diameter. The total area of the group is estimated at 6,297 square miles.

2. The whole group is indented in a remarkable manner by bays, harbors, and sounds. Two of the latter, Choiseul and Grantham, penetrate so deeply into either side of East Falkland as nearly to divide this island into two parts, the intervening isthmus being little more than two miles across. On the west coast of West Falkland the indentations are at once so spacious and numerous as to reduce the intervening land to a series of narrow peninsulas. These arms of the sea form excellent harbors, and, together with the varied outline of the mountains, constitute the principal relief to the general aspect of the scenery.

3. Very little is known of West Falkland, and it is entirely uninhabited. It is said to possess a finer climate than East Falkland; and it has a larger number of good harbors. At certain seasons it is visited by whalers and sealers, chiefly Americans, and by vessels in quest of guano. The average height of it appears to be greater than that of East Falkland, though the highest hills appear to be in the last-mentioned island. A chain called the Wickham Heights runs across East Falkland in a due east and west direction from Port William to Port



Sussex, on Falkland Sound. Mount Usborne, near the latter, is 2,300 feet above the sea. The other hills vary in height from 800 to 2,000 feet. These consist chiefly of quartz rock, and are extremely rugged at their summits, where they sometimes assume the most wild and fantastic forms. The country north of the heights has a hilly surface, and at several places these hills rise to some hundred feet above the general level. To the south of the heights the surface is plain, declining gently toward the shores. In some parts of the island the bottoms of the valleys are covered with great angular fragments of quartz rock. These do not occur in irregular masses, but are spread out in level sheets or great streams, varying from 100 feet to a mile in breadth.

4. Rivers, properly so called, are few in number. The San Carlos is the largest—it winds very much, and is only about 30 miles in length, and is navigable for boats eight miles from its mouth. The only other stream of any note in East Falkland is the Arwyo-malo, which flows parallel to the Wickham Heights, and falls into Port San Salado, on the northeast coast. There are, however, numerous springs and rivulets, and also many fresh-water lakes or pools, varying in size from 200 yards to three or four miles in circumference.

5. The climate is equable and remarkably salubrious, the extremes of heat or cold being small. The ordinary range of the thermometer is between 30° and 50° in winter, and from 40° to 65° in summer. The mean temperature of the year is 47° Fahr. The ice in winter seldom exceeds half an inch thick, and the snow is rarely more than a few inches deep. Light passing showers are frequent, but a day of continual rain rarely occurs. Easterly winds seldom blow—the northerly are more frequent, and bring gloomy, damp weather; but the prevalent winds are westerly. These latter commonly commence at 9 o'clock, blow with a force bordering nearly on a gale through the day, and die away at 4 or 5 o'clock P. M. The nights are generally calm, and the contrast between bright and still mornings and calm evenings with the stormy mid-day is very striking.

6. There are no trees in these islands, and but three or four different kinds of shrubs. The grasses, which at present are the most important production, are generally coarse and long, but very nutritious, and feed large herds of horses and cattle. Turnips and other common vegetables grow exceedingly well in sheltered places. Barley and oats are also cultivated, but the soil is not favorable to the production of wheat.

7. Indigenous animals are not numerous, either in species or numbers. The only carnivorous animal is the warrah or wolf fox, a peculiar species. Within the past few years a considerable extent of land has been inclosed for the grazing and domestication of sheep and cattle. Wild hogs abound on one of the islands, and rabbits are found in large numbers on all. Hair-seals and fur-seals, formerly abundant about the coasts, have been greatly decreased; but the black whale, found chiefly in the sea to the west, still affords employment for whale-ships. The supply of fish is abundant, and there are plenty of swans, geese, ducks, and other wild-fowl.

8. The chief object of the British in maintaining an establishment on the Falkland Islands is the advantages they offer in affording water, fresh meat, and refreshment to the crews of vessels passing round Cape Horn. The actual commerce is small. The imports consist of timber, lime, bricks, flour, sugar, coffee, and manufactured goods; and the exports consist of hides, tallow, salted beef, seal-skins, and fish-oil. In 1855 the imports were valued at $81,600, and the exports at $38,400. The fisheries have been of late attracting the attention of the colonists; and guano is obtained in considerable quantities on West Falkland.

9. The government establishment consists of a governor, two clerks, a surveyor, surgeon, harbor-master, stipendary magistrate, and a chaplain. The annual expenses of the establishment are about $8,520. The total expenditures, including buildings, etc., has hitherto been about $38,400; the sum voted by Parliament for the year 1851–2 was $24,000. The fixed revenue of the settlement, which was only $2,125 in 1850, had increased to $6,206 in 1854.

10. Stanley, the seat of government, is situate at the head of Port William, a land-locked inlet on the northeast coast. Latitude 51° 40′, and longitude 57° 49′. It is a free port, and is said to possess advantages, being easily entered, well protected, and affording safe anchorage.

11. The Falkland Islands were discovered in 1592 by Dr. John Davis, who accompanied Cavendish in his second voyage; and Hawkins, who sailed along them in 1594, called them Hawkins' Maiden Land. In 1690 Strong sailed through the strait and called it Falkland Sound, whence the islands were afterward called Falkland Islands. Several vessels from St. Malo passed near the islands between 1706 and 1714, and from these they were named by the French Les Iles Malouines.

12. In 1764 the French established a colony on one of the harbors of Berkeley Sound, and called it St. Louis; and two years later the British formed a settlement on West Falkland, on the inlet called Port Egmont. In 1767 the French ceded their settlement to the Spaniards, who, in 1770, attacked the English colony and took it. It was subsequently restored, however; but afterward the British abandoned the colony. The Spaniards also withdrew their garrison from Port Louis.

13. In the beginning of the present century the whale fisheries of the South Atlantic began to be prosecuted on an extensive scale, and many of the whaling vessels visited these islands for supplies. It was also discovered that the coasts abounded with seals, and these animals attracted numerous other adventurers. Thus Berkeley Sound was seldom without the presence of some visitors. These circumstances induced the newly-formed government of Buenos Ayres to take possession of East Falkland in 1820; and in 1823 they formed a settlement at Port Louis. In 1829 England, which had never relinquished its possessory rights, protested against these proceedings, and in 1833 the colony was given up. For some years after only a lieutenant of the navy with a boat's crew resided at the port.

14. The British government in 1840 resolved to colonize the islands. The settlers came to Port Louis, but on examining the country in the vicinity it was found that Port William, south of Berkeley Sound, offered greater advantages as a naval station and port of refuge, and in 1840 a town was laid out on the southern shores of Port Stanley. The population of the colony in March, 1847, was 270. In 1848 large tracts of land and the possession of all the wild cattle for six years were granted to a Mr. Lafone, a wealthy merchant of Montevideo, and the population has been greatly increased by the influx of his servants, so that in 1850 the population numbered 2,600 souls. The rights of this gentlemen have been transferred to a joint stock company, which has obtained additional privileges from the government. The settlement generally is reported to be in a prosperous condition.

21,742,650 of Nature

EUROPE

(PHYSICAL)

The names of the chief products of each country are inserted thus Corn. Flax, Linen. The localities where minerals are found, are marked thus **Gold, Copper & Tin.**

SCALE OF STATUTE MILES 69.16 to 1°

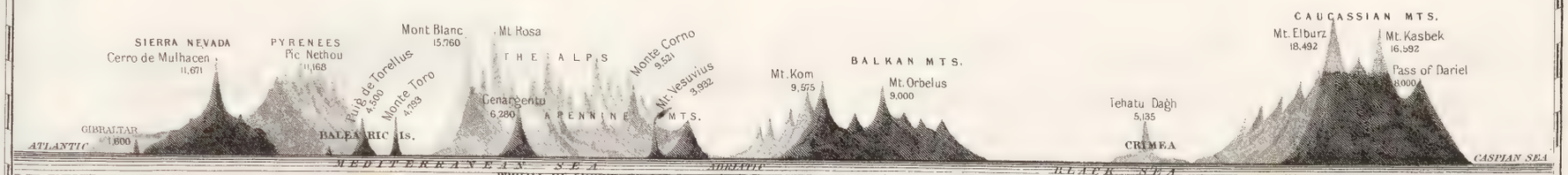
0 100 200 300 400 500

300 Geographical or 345.79 Statute Miles. to one inch.

BRITISH ISLES, Corn, Cattle &c. Coal, Iron, Copper, Lead, Salt, Tin, Machinery, Hardware, Cutlery, Leather, Cotton, Woolen, Silk & Linen Goods, Earthenware.— **BELGIUM**, Iron, Coal, Zinc, Corn, Flax, Bark, Linen, Lace, Carpets, Glass &c.— **HOLLAND**, Butter, Cheese, Cattle, Bark, Madder, Seeds, Oil, Corn, Linen &c.— **HANOVER**, Barley, Oats, Horses, Cattle, Woolen, Linen.— **BADEN**, Corn, Timber, Wool, Cattle & Salt.— **BAVARIA** Sheep, Cattle, Timber, Hogs, Leather, Ironware.— **SAXONY**, Wool, Cotton, Woolen & Linen Goods, Porcelain &c.— **SWITZERLAND**, Cattle, Cheese, Watches, Silk & Cotton, Goods.— **SARDINIA**, Corn, Cattle, Silk, Olive Oil, Velvets &c.— **GREECE**, Wheat. Cotton, Fruits, Wax, Honey, Silk, Oil &c— **DENMARK**, Corn, Cattle, Hides, Butter, Wool &c.

The mean temperature of July the hottest month and January the coldest is shown by Isothermal lines crossing the map thus July 68. January 23 the figures showing the temperature of Fahrenheit. The direction of Ocean Currents is shown by Arrows and the figures attached show the velocity of water for each period of 24 hours in nautical miles.

Mountain Chains are represented thus (the broader the line the greater the elevation) The highest points are marked with circles Volcanoes are distinguished by a black dot in the centre of the circle, elevation given in feet. Table lands and Plateaus are colored Brown. Plains, Valleys and Lowlands, colored Green.



PROFILE OF EUROPE ON LAT. 36° TO 43° N. FROM STRAIT OF GIBRALTAR TO THE CASPIAN SEA

Entered according to Act of Congress, in the Year 1858 by J.H. Colton & Co. in the Clerks Office of the District Court of the United States for the Southern District of New York.

EUROPE

1/21,742,650 of Nature

SCALE OF STATUTE MILES 69.16 to 1°

0 100 200 300 400 500

300 Geographical or 345.79 Statute Miles. to one inch.

PROFILE OF EUROPE FROM THE SOUTH WEST POINT OF IRELAND TO NORTH CAPE, NORWAY.

PROFILE OF EUROPE FROM THE ATLANTIC OCEAN TO THE URAL RIVER BETWEEN LAT. 45° & 48° N.

Entered according to Act of Congress, in the Year 1855 by J. H. Colton & Co. in the Clerks Office of the District Court of the United States for the Southern District of New York.

DESCRIPTIVE GEOGRAPHY OF EUROPE.



1. EUROPE is a great peninsula, forming the northwest portion of the Eastern Continent or Old World. It is the least of the principal divisions of the land surface of the earth, Australia alone excepted; and yields to the other great divisions not only in general grandeur of scale, but also in appreciable endowments—noble rivers, luxuriant vegetation, and mineral treasures. Yet it is in Europe that civilization has attained its most perfect development; and the sovereignty of European nations now extends into every quarter of the globe. The origin of this striking moral superiority may be attributed more or less to certain physico-geographical conditions, such as climate, productions, maritime commerce, etc., more happily combined in Europe than elsewhere, and which exercise a profound and inevitable influence on the social and political condition of nations. Hence the position Europe has attained. It is to the world, indeed, what Rome was to Italy, or Athens to Greece, the favored land, *unde humanitas, doctrina, religio, fruges, jura, leges ortæ, atque in omnes terras distributæ putantur.*

2. This great projection of land lies between the latitudes 34° 49′ and 71° 12′ north, and between the longitudes 10° 20′ west and 60° 36′ east from Greenwich. Toward the north it is bounded by the Arctic Sea; on the east it is separated from Asia by the river Kara Baïgarama, the Ural Mountains and river, the Caspian Sea, the Strait of Ienikale, the Sea of Marmora, the Dardanelles, and the Archipelago; its southern boundary is the principal chain of the Caucasus, the Black Sea, the Mediterranean Sea, and the Strait of Gibraltar, the two latter separating it from Africa; and on the west its shores are washed by the Atlantic and Arctic oceans.

3. The greatest length of Europe, from Cape St. Vincent, in Portugal, to a point in the chain of the Urals, in the neighborhood of Iekaterinburg, is 3,372 miles; and its greatest width, from Cape Nord-Kin, in Finmark, to Cape Matapan, in the Morea, is about 2,400 miles. The narrowest part of the peninsula washed by opposite seas is that between the Gulf of Kandalaskaia, a branch of the White Sea, and the Gulf of Bothnia. There is also a remarkable contraction between the Bay of Biscay and the Gulf of Lions. The width of the former of these contractions is 200 miles, and of the latter 230 miles. Owing to this incompactness, and its separation into peninsulas, the area of Europe, notwithstanding its great length and breadth, does not exceed 3,830,000 square miles.

4. The seas, on which the great indentations in the boundaries of Europe depend, deserve the first place in description. These, however, are by no means so extensive as is commonly supposed. The Mediterranean, the noblest of all inland seas, for example, is sometimes reckoned among the strictly European seas; but it would be quite as correct to describe it as belonging to Africa or Asia as to Europe. It is obviously common to them all. This also is nearly the case with the Black Sea and the Caspian. The great arm of the Mediterranean, called the Adriatic, and the Sea of Azoph, being almost wholly encircled by European countries, are most properly said to be European seas. The Baltic, however, is the real Mediterranean of Europe. The Zuyder Zee and the White Sea are also nearly land-locked by European countries.

5. The chief bays and gulfs of Europe are—the Gulf of Kara, in northern Russia; the bays of Archangel and Onega, belonging to the White Sea; the gulfs of Bothnia, Finland, and Riga, belonging to the Baltic; the Bay of Biscay, forming a part of the Atlantic; the Gulf of Lions, in the south of France; those of Genoa, Naples, Taranto, Venice, and Trieste, in Italy; and of Arta, Lepanto, Egina, Volo, and Salonica, in Greece.

6. Having so irregular an outline, Europe necessarily presents numerous peninsulas and headlands. In the south the principal peninsulas are—Spain, with Portugal; Italy, with its sub-peninsulas of Calabria and Otranto; Turkey, with Greece, which includes the sub-peninsulas of the Morea and Salonica, and the Crimea. In the north the great Scandinavian peninsula, and those of Lapland and Jutland are the principal; and in the west are the much less considerable ones of Brittany and Cotentin in France, and that including the counties of Devon and Cornwall in England.

7. The principal capes and headlands, proceeding from north to south, are—Cape Gelama, in Nova Zembla; the North Cape and the Naze, in Norway; Cape Skagen, in Denmark; Cape Wrath, in Scotland; the Land's End, in England; Cape Clear, in Ireland; capes La Hogue and Finisterre, in France; Roca, St. Vincent, and the Rock of Gibraltar, in the Peninsula; Spartivento and Leuca, in Italy; Passaro, in Sicily; and Matapan and Colonna, in Greece.

8. The principal islands forming parts of Europe, Iceland being excluded, are—the British Isles, with their dependent groups in the Atlantic and North Sea; Sicily, Sardinia, Corsica, Candia, the Cyclades and the Sporades, the Ionian Islands, the Dalmatian Archipelago, Malta, Elba, Majorca, Minorca, the Lipari Islands, etc., in the Mediterranean; Zealand, Funen, Laland, Bornholm, the Aland Archipelago, etc., in the Baltic; the Loffoden and others on the coast of Norway; Spitzbergen and Nova Zembla, in the Arctic Ocean; the Channel Islands, etc.

9. The European mountains may be divided into seven distinct systems. The Alps abut the great central table-land of Europe, over a sixth part of which their ramifications extend. The summits of the Alpine system yield only to those of the Caucasus, which, with the Urals, separate Europe from Asia. Mont Blanc, in Savoy, the culminating point, is 15,732 feet in height. The Apennines, Carpathians, Balkhans, etc., all belong to or are intimately connected with this system. The Hesperic or Pyrennean system extends throughout Spain, Portugal, and a part of France. Its ranges, for the most part, run east and west through the Peninsula, and its culminating point is the Cerro de Mulhacen, in the Sierra Nevada, 11,660 feet high. The Sardo-Corsican system is confined, as its name implies, to the islands of Sardinia and Corsica, in the latter of which it attains, in Monte Rotundo, the elevation of 9,068 feet. The Tauric system is comprised in the Crimea, and nowhere reaches above 5,000 feet above the sea-level. The British and Irish system has but few summits of any considerable height; Snowdon, in England, 3,555 feet high; Ben Nevis, in Scotland, 4,370 feet; and Carran Tual, in Ireland, 3,410 feet, are the loftiest culminations. The Scandinavian system is spread over Norway, Sweden, Lapland, and Finland; its principal chains run north and south, and its highest point, Skagetoltind, is 8,128 feet in elevation. The Sarmatian system consists of a few scattered hill chains in Russia, Poland, and the northeast part of Prussia; its greatest elevation, which occurs in the plateau of Valdai, does not reach more than 1,118 feet above the level of the sea.

10. The whole of northern Europe, including the greater part of Russia, Poland, Prussia, Germany, Holland, Belgium, the north of France, and the east part of England, consists of an immense plain, interspersed only here and there with a few detached hill ranges. This plain is little elevated above the sea, and has, at no very remote geological period, formed part of the bed of a vast ocean, of which the Baltic is now the only considerable remaining portion.

The innumerable shallow lakes on the north of Germany, and between the Baltic and White seas, are smaller remnants; and independently of this, the morasses abounding in marine plants, and the sands of North Germany and Prussia, are incontestable evidences of the former submersion of the land. The more inland and easterly parts of this plain, which seem to have first emerged from the sea, are covered with a deep, rich vegetable soil. Next to this great plain, rank those watered by the Danube and the Lower Rhine, that of Lombardy and the Bohemian basin. The valleys generally are but insignificant compared with those of Asia and America; but those of the Rhine, Upper Rhone, and Drave deserve notice, as well for their extent as their picturesque beauty. Those of Norway and Scotland are commonly long and narrow, and their bottoms are often occupied by lakes, having the appearance of rivers. Europe has no deserts at all similar to those of the other great divisions of the globe. There are, however, some very extensive heaths and wastes, as the steppes of Russia, the puztas



STEPPES OF SOUTHERN RUSSIA.

of Hungary, the wilds of Sweden, Hanover, and Prussia, etc. Landes and Gironde, in France, are mostly unproductive heaths, and also a great part of the Terra di Bari, in Italy.

11. The great watershed of Europe, or the ridge dividing the waters which flow into the Baltic and North Sea, runs through the continent in a general northeast and southwest direction. The courses of the principal rivers are, therefore, for the most part southeast or northwest. Of the six largest, the Wolga, Danube, Dneiper, Don, Rhine, and Dwina, the first four flow in the former, and the last two in the latter direction. The chief rivers may be classed according to the seas into which they discharge themselves. The Wolga and the Ural fall into the Caspian; the Don, Dneiper, Dneister, and Danube into the Black Sea and Sea of Azoph; the Petchora and Dwina into the Arctic Ocean; the Neva, Duna, Niemen, Vistula, and Oder into the Baltic; the Elbe, Weser, Rhine, Meuse, and Scheldt into the North Sea; the Loire, Garonne, Douro, Tagus, and Guadalquiver into the Atlantic; and the Ebro, Rhone, and Po into the Mediterranean. Nearly all the great rivers are in the east and northeast parts of the continent. Western Europe has but few rivers that have courses of more than 500 or 600 miles. Still, however, this part of the continent is extremely well watered; and some of the shortest rivers, as the Thames and Shannon, afford the greatest facilities for internal navigation and commerce.

12. But especially deserving of remark is the facility with which the head-waters of streams which flow in opposite directions from the same line of watershed may, in many cases, be connected together and lines of communication be thereby opened between different seas. This feature of European hydrography is most conspicuously developed in the great eastern plain, where the line of the watershed between the Black and Caspian seas on the one side, and of the Baltic and White seas on the other, is marked only by inconsiderable elevations, and is in some parts perfectly level. At seven different places artificial communications, by canals connecting the rivers on either side, have been made across this line, and a complete inland navigation thus effected across the greatest breadth of the continent.

13. The lakes of Europe are situated chiefly in Russia, Finland, Sweden, Switzerland, Italy, Hungary, Austria, Prussia, Scotland, Ireland, and Greece. Among the principal are—Ladoga and Onega, in Russia; Wener, Wetter, and Maëlar, in Sweden; Saima, in Finland; Enara, in Lapland; Geneva, Neufchatel, and Constance, in Switzerland; Garda and Maggiore, in Italy; and Balaton and Neusiedler, in Hungary. Lagunes are numerous along the south coasts of the Baltic, and some parts of the Mediterranean and Adriatic shores; and Holland is full of dykes and pools. The coasts of Norway and Sweden abound with inlets of the sea, which often stretch a long distance inland; these, however, do not consist of stagnant waters. There are some extensive swamps in Poland and Hungary, and many of minor extent in the great plain of the continent and on the shores of the Black Sea.

14. All the lakes above enumerated have fresh water, excepting the Neusiedler and Balaton, both of little depth, and neither of which have any outlet. The waters of Balaton are slightly salt, and those of Neusiedler extremely so, containing sulphate, muriate, and carbonate of soda: both of them, however, abound in fish. But the saltest body of water in Europe (and probably in the whole world) is the lake of Ielton, on the steppe to the east of the Volga, which has an area of 130 square miles, and furnishes two thirds of the salt consumed in Russia.

15. The average temperature is much higher than on the same parallels of Asia and America; and as the greater part of Europe is situated within the temperate zone, it suffers but little from the extremes either of cold or heat. But within the limits of Europe there are vast differences of climate, and, independent of differences consequent on latitude, the temperature diminishes so much in proportion eastward, that the inhabitants of Turkey, in latitude 42°, often experience a degree of cold unknown in the north of England, in latitude 54°. The hottest part of Europe is the southwest extremity. The south, shut off from the cold north and east winds by the Alpine ranges, has generally a warm climate, and occasionally suffers from the influence of the sirocco. Humidity is the chief characteristic of the atmosphere in the west of Europe, as frigidity is in that of the east. Beyond the Arctic circle mercury freezes in September, and the desolation of winter is broken only by two or three months of intense heat, during which the sun is perpetually above the horizon. The absence of this luminary for the rest of the year is compensated for by the magnificent phenomena of the aurora borealis, which shines in these regions with the utmost brilliancy.

16. In one or other portion of the European continent all the known minerals are found. If nature has denied to this continent a great abundance of the precious metals, their absence is fully compensated by the presence of vast deposits of the more useful. Iron, coal, salt, copper, tin, lead, and quicksilver exist in all their forms, and in exhaustless abundance. Iron and salt are almost universally diffused; coal, the most important of all minerals, is most plentiful in Western Europe, and especially in Great Britain. Copper abounds most in the north and west—in Sweden and England; and the mines of Cornwall are not only the most productive, but probably also the most ancient in the world. Lead is most plentiful in Spain and England; and the quicksilver mines of Idria, in the Austrian Empire, are extremely rich, as are also the mines of Spain. Gold, silver, and platina are found, the first chiefly in Transylvania, Hungary, and Russia, the second in various parts of Western Europe, and the last in the Caucasus and Ural mountains. Zinc, cobalt, arsenic, etc., are found in numerous states, and also every variety of precious stones. North Italy yields the finest statuary marble, and the south part of the same country and Sicily supply immense quantities of sulphur, vitriol, sal ammoniac, and various other volcanic products. Niter is found chiefly in Hungary. Besides these, Europe furnishes the finest granite and building stone of various kinds, serpentine, slate, porcelain clay, rock crystal, alabaster, amianthus, and most of the minerals that are useful in the economic arts. To these, in a great measure, is owing the high industrial position attained by the people inhabiting this continent; and in an especial manner is the wealth and political importance of the British Empire owing to its mineral deposits.

17. With respect to the vegetable kingdom, Europe may be conveniently divided into four zones. The first, or most northern, is that of lichen, fir, and birch. The heights inaccessible to other vegetation, up to the borders of perpetual snow, are occupied by lichens. The birch reaches almost to Cape Nord-Kin—the fir ceases a degree farther south. The cultivation of grain extends far into these inhospitable latitudes: barley ripens under the 70th parallel, and wheat as high up as 62° in Sweden, and 64° in Norway. In East Russia the limit of barley is in about 67°. Within this zone, however, agriculture has little importance. The next zone, which may be called that of the oak and beech, and cereal production, extends south to the 48th parallel. The Alps, though beyond the limit, by reason of their elevation, belong to this zone, and in the moister parts of these mountains cattle husbandry has been brought to perfection. The next zone is that of the chestnut and vine, occupying the space between 48° and the mountain chains of the south. Here the oak still flourishes, but the pine species become rare. Rye, which characterizes the preceding zone, gives way to wheat, and in the south portion of it to maize also. The fourth zone, comprehending the southern peninsulas, is that of the olive and evergreen woods. The orange flourishes in the south part of it, and rice is cultivated in a few spots in Northern Italy and Eastern Spain. The deciduous oak here gives place to the evergreen and cork oaks, with edible acorns. The lines which define the region favorable to each plant generally incline south toward east; but it is otherwise with the vine, olive, and a few other plants within certain limits. The cultivation of the vine begins on the coast of France, in 48°, passes north of Paris, in 49°, and goes still farther north in Germany, where it reaches its northern limit; it is still, however, carried on with success on the Wolga, in the 50th parallel.

18. The animal kingdom in Europe is less varied than the vegetable; but this inferiority is fully compensated by the usefulness and value of its subjects. Some of the animals known to have existed are now extinct, or nearly so, and the clearing of the forests has greatly checked the increase of those that still exist. Of the mammals there are only 150 species, and of these only 58 species are peculiar to Europe. The most formidable are the white bear of the north, the brown bear of the Alps and Pyrennees, the wolf, and the wild boar; and the largest (exclusive of the whale, walrus, etc., inhabiting the northern seas) are the elk and the reindeer of the north. These kinds of deer give place in central Europe to the reindeer and roebuck, and these again in the Alpine regions to the chamois and ibex. The other principal animals are the lynx, wild cat, fox, martin, otter, beaver, pole-cat, glutton, porcupine, hedge-hog, various kinds of weasels, squirrels, hares, rabbits, etc. The black cattle of Europe have attained a high perfection. The sheep is universally diffused, and of these the "merinos" are the most celebrated for their wool. The horses of Europe are unrivaled in strength and courage. The ass of southern Europe is a fine and noble animal. It is much valued for the breeding



REINDEER.

of mules, the sure-footedness and hardiness of which render them highly useful. The bird tribe is much more varied than that of quadrupeds. As many as 500 different species have been enumerated; but many of these are only birds of passage. The family of reptiles has fewer species, and few are either large or venomous. Crustacea are numerous in the north, and molusca in the south. In some parts of Europe scorpions and tarantulas are troublesome; mosquitoes infect the south, and the gnat and gad-fly the middle regions. Europe is generally, however, considered by naturalists as the grand region of butterflies. The European annelides include the medicinal leech, so plentiful in the pools of Germany, Sweden, and Poland. Radiated animals, zoophytes, etc., are particularly abundant on the southern coasts, where some of them, as the "actinias," are used as food, and where the coral fisheries employ many hands. Both the rivers and seas abound in fish.

19. The present people inhabiting Europe, exclusive of those in the Caucasus, are said to be derived from ten distinct races or families. It is worthy of remark, however, that the more ancient the stock, the less numerous are its representatives. The Spanish or Iberian family includes all the inhabitants of the Peninsula—the Portuguese Basques, as well as the true Spaniards. In the Italians the ancient type has been preserved, notwithstanding much admixture with Greek and German blood. The Greek family, though subjugated for upward of four hundred years, has preserved its distinctiveness. By the Greeks the arts and civilization were spread over Europe, and to them we are indebted for all rational literature and science. The Turkish or Tartar is the only Oriental race that ever succeeded in forming by conquest a permanent settlement in Europe. The Celtic family is recognized in the Irish, the Highlanders, and the Welsh, and the inhabitants of Bretagne and parts of Belgium and Switzerland. They are the Gauls of Cæsar, and the Caledonians and Silures of Tacitus. The Teutonic or German family, though scarcely known two thousand years ago, is now the ruling race of Europe. It embraces the Swedes, Norwegians, Danes, Dutch, Germans, and the great mass of Scotch and English. In its own country this family has never been conquered; but it has itself been the most extensive and permanent of all conquerors. The Sclavonic race embraces the Russians, Poles, and Lithuanians, and a portion of the Bohemians, Bosnians, Servians, Wends, Dalmatians, Crotians, and Bulgarians. They are superior in energy to the Asiatic races, and have made considerable progress in civilization. The Finns are a small family in the north, and resemble much the Esquimaux of America. Hungary, Transylvania, Wallachia, Moldavia, and Bessarabia are inhabited by a variety of races, said to be descended from the Magyars of Asia. The ancient inhabitants were the Pannonians and Dacians. The Mongolian family, such as the Samoyedes, the Soiyanes, Permians, Wotyuks, Kalmucks, and Kirghises, inhabit the northeastern portion of Europe. The Jews, of the Semitic family, are dispersed over all the continent, but are most numerous in the rudest parts of Russia and Poland.

20. Christianity, in its various forms, sheds its benign influence over the greater portion of Europe. The Turks alone, as a people, deny its authenticity. The Roman Catholic Church extends its authority over almost the whole of France and Belgium, the whole of Italy, Spain, Portugal, and Sardinia, seven eighths of Ireland, the greater part of Austria, nearly one half of the Swiss Confederation, and over a fractional part of Turkey. The Greek, or Eastern Church, is established in Russia, the Ionian Isles, the Kingdom of Greece, and the principalities of Servia, Wallachia, and Moldavia; and its doctrines are professed by numerous subjects of Turkey and Austria. The Protestant churches are proportionably small in number, and are of several denominations. The Lutherans are dominant in Prussia, Denmark, Sweden, Hanover, Saxony, Wurtemburg, and the smaller German states. The Calvinists prevail in Holland, Switzerland, Nassau, Electoral Hesse, Lippe, Anhalt, etc.; are numerous in France, Prussia, and Austria, and form a vast majority in Scotland. The English Episcopal is the established church of England and Ireland, and perhaps the adherents of this church are in a majority in England; but in that kingdom the Methodists, Presbyterians, Baptists, and several other Protestants sects, have powerful organizations. The Baptists are also strong in Holland and Prussia, the Socinians in Transylvania, the Quakers in Holland and England.

21. That portion of the population not professing the Christian religion may be classed under four heads, viz., Islamism, the dominant religion in Turkey; Judaism, professed by the Jews; Samism, or the religion professed by the wandering Kalmucks in Russia; and lastly, Idolatry, which is to be found only among the rude nations of the extreme north and east parts of the continent.

22. The existing political divisions of Europe may be classified as follows: *empires:* France, Austria, Russia, Turkey;—*kingdoms:* Great Britain and Ireland, Spain, Portugal, Belgium, Holland, Bavaria, Wurtemburg, Saxony, Hanover, Prussia, Denmark, Sweden and Norway, Sardinia, Naples and Sicily, Greece;—*ecclesiasticate:* Papal States;—*electorate:* Hesse-Cassel;—*grand duchies:* Baden, Hesse-Darmstadt, Saxe-Weimar-Eisenach, Oldenburg, Luxemburg, Mechlenburg-Schwerin, Mechlenburg-Strelitz, Tuscany;—*duchies:* Nassau, Saxe-Coburg-Gotha, Saxe-Meiningen-Hildburghausen, Saxe-Altenburg, Anhalt-Bernburg, Anhalt-Dessau-Köthen, Brunswick, Holstein and Lauenburg, Parma, Modena and Massa;—*landgravate:* Hesse-Homburg;—*lordship:* Kniphausen;—*principalities:* Hohenzollern-Heckingen and Hohenzollern-Sigmaringen (now united with Prussia), Waldeck, Lippe-Detmold, Schaumburg-Lippe, Reuss-Schleitz, Reuss-Greitz, Schwartzburg-Sondershausen, Schwartzburg-Rudolstadt, Lichtenstein, Monaco, Lucca;—*republics:* Andorré, Swiss Confederation, San Marino;—*free cities:* Lubeck, Frankfurt, Bremen, Hamburg.

23. The following table exhibits the leading statistics of the several states, with their respective ranks, reigning (1855) sovereigns, forms of government, religions, etc.:

Political Divisions.	Rank.	Reigning Sovereigns.	Forms of Government.	Religion.	Area, sq. m.	Population.‡	Pop. to sq. m.	Capitals.	Popula.
Andorré	Republic		Two Syndics and 24 consuls	Roman Catholic	191	8,000	41.8	Andorré	2,000
Anhalt-Bernburg*	Duchy	Alexander	Limited Sovereignty: one chamber	Evangelical	319	53,475	167.6	Bernburg	6,772
Anhalt-Dessau-Köthen*	"	Leopold Frederick	" " "	"	599	114,850	191.8	Dessau	11,951
Austrian States†	Empire	Francis Joseph	Absolute " : council	Roman Catholic	257,579	39,411,309(4)	168.5	Vienna	431,889
Baden*	Grand Duchy	Frederick	Limited " : two chambers	Evangelical	5,916	1,356,943(2)	229.3	Carlsruhe	25,160
Bavaria*	Kingdom	Maximilian II.	" " "	Roman Catholic	29,484	4,541,556	154.0	Munich	132,112
Belgium	"	Leopold I.	" " "	" "	11,402	4,584,932	402.1	Brussels	251,631
Bremen*	Free City		Three Burgomasters: senate	Lutheran	74	88,856	1200.6	Bremen	60,087
Brunswick*	Duchy	William	Limited Sovereignty: one chamber	"	1,427	271,208(3)	190.0	Brunswick	43,291
Denmark (and the Duchies*)	Kingdom	Frederick VII.	" " : provincial states	"	22,036	2,468,648	112.0	Copenhagen	129,695
France	Empire	Napoleon III.	" " : senate and legislature	Roman Catholic	207,149	35,781,628(1)	172.7	Paris	1,053,262
Frankfurt*	Free City		Two Burgomasters: senate and assembly	Lutheran	39	74,784	1917.5	Frankfurt	64,257
Gibraltar	Fortress		Military	Roman Catholic	6	15,823(1)	2637.1	Gibraltar	15,823
Great Britain and Ireland	Kingdom	Victoria I.	Limited Sovereignty: lords and commons	Protestant Episcopal	122,519	27,737,363(1)	226.4	London	2,362,236
Greece	"	Otho I.	" " : two chambers	Greek Catholic	19,031	1,043,153	54.7	Athens	31,125
Hamburg*	Free City		Two Syndics: senate and assembly	Lutheran	136	219,606	1614.9	Hamburg	164,145
Hanover*	Kingdom	George V.	Limited Sovereignty: two chambers	"	14,846	1,819,252(2)	122.6	Hanover	42,484
Heligoland	British Possession		Military	Protestant Episcopal	5	2,236(2)	447.2	——	—
Hesse-Cassel*	Electorate	Frederick William I.	Limited Sovereignty: two chambers	Reformed	3,740	755,350(4)	201.9	Cassel	32,516
Hesse-Darmstadt*	Grand Duchy	Louis III.	" " : "	Lutheran	3,245	854,314(2)	263.3	Darmstadt	29,716
Hesse-Homburg*	Landgravate	Ferdinand	Regency under Darmstadt	"	106	24,937	235.2	Homburg	4,600
Holland (with Luxemburg*)	Kingdom	William III.	Limited Sovereignty: two chambers	Reformed	13,610	3,450,707	253.5	The Hague	62,467
Ionian Islands	Republic		Lord High Commissioner: senate and assembly	Greek Catholic	1,102	232,297(1)	210.8	Corfu	16,000
Lichtenstein*	Principality	Alois	Limited Sovereignty: one chamber	Roman Catholic	61	7,150	117.2	Lichtenstein	1,800
Lippe-Detmold*	"	Leopold	" " : "	Reformed	437	105,490	241.4	Detmold	4,716
Lubeck*	Free City		Executive Senate and Assembly	Lutheran	126	54,166(1)	429.9	Lubeck	26,098
Mechlenburg-Schwerin*	Grand Duchy	Frederick Francis	Limited Sovereignty: one chamber	"	5,187	541,091	104.3	Schwerin	17,336
Mechlenburg-Strelitz*	"	George	" " : "	"	1,051	99,628	94.9	Neu-Strelitz	6,484
Maltese Islands	British Possession		Military	Roman Catholic	219	128,361(1)	586.1	Valetta	59,822
Modena	Duchy	Francis V.	Absolute Sovereignty: council	" "	2,336	600,676	257.1	Modena	28,810
Monaco	Principality	Charles III.	Under protection of Sardinia	" "	58	8,200(1)	141.3	Monaco	1,200
Nassau*	Duchy	Adolphus	Limited Sovereignty: two chambers	Evangelical	1,888	431,519	234.6	Weisbaden	12,269
Oldenburg (with Kniphausen*)	Grand Duchy	Peter	" " : "	Lutheran	2,441	285,149(2)	116.8	Oldenburg	7,829
Parma	Duchy	Robert I.	Absolute Sovereignty	Roman Catholic	2,401	508,784(4)	211.5	Parma	40,995
Portugal, with Azores, etc	Kingdom	Pedro I.	Limited Sovereignty: two chambers	" "	42,415	3,844,119(4)	90.6	Lisbon	260,000
Prussia† (with Hohenzollern*)	"	Frederick William IV.	" " : "	Evangelical	108,447	17,178,091(4)	158.4	Berlin	487,001
Reuss-Greitz*	Principality	Henry XX.	" " : one chamber	Lutheran	144	35,159(3)	244.1	Greitz	6,215
Reuss-Schleitz*	"	Henry LXVII.	" " : "	"	448	80,208(3)	179.9	Schleitz	4,912
Roman or Papal States	Ecclesiasticate	Pius IX.	Absolute Sovereignty	Roman Catholic	15,903	3,006,771(0)	189.1	Rome	177,461
Russia	Empire	Alexander II.	" " : council	Greek Catholic	2,134,126	60,122,669(1)	28.1	St. Petersburg	532,241
San Marino	Republic		Two Regents: senate and council	Roman Catholic	24	7,750	322.9	San Marino	1,250
Sardinia	Kingdom	Victor Emanuel II.	Limited Sovereignty: two chambers	" "	29,165	5,090,245(2)	174.5	Turin	143,157
Saxe-Altenburg*	Duchy	Ernest	" " : one chamber	Lutheran	510	132,990	260.7	Altenburg	16,232
Saxe-Coburg-Gotha*	"	Ernest II.	" " : "	"	772	150,878	195.4	Coburg	12,122
Saxe-Meiningen*	"	Bernard	" " : "	"	972	165,530	170.3	Meiningen	6,497
Saxe-Weimar-Eisenach*	Grand Duchy	Charles Alexander	" " : "	"	1,402	263,755	188.1	Weimar	12,271
Saxony*	Kingdom	John	" " : two chambers	"	5,776	2,039,075	353.0	Dresden	108,732
Schaumburg-Lippe*	Principality	George	" " : one chamber	Reformed	171	29,848	174.5	Buckeburg	3,250
Schwartzburg-Rudolstadt*	"	Gunther	" " : "	Lutheran	371	68,974	185.8	Rudolstadt	5,912
Schwartzburg-Sondershausen*	"	Gunther	" " : "	"	328	61,452	187.3	Sondershausen	3,612
Spain (Balearic and Canary Isl.)	Kingdom	Isabella II.	" " : peers and deputies	Roman Catholic	182,713	14,216,219(0)	77.7	Madrid	260,000
Sweden and	"	Oscar I.	" " : four chambers	Lutheran	170,699	3,482,541(0)	20.4	Stockholm	95,958
Norway	"	Oscar I.	" " : two "	"	123,228	1,433,488	11.6	Christiana	38,958
Switzerland	Republic		Federal Council: senate and assembly	"	15,272	2,392,740(1)	156.6	Bern	27,758
Turkey	Empire	Abdul-Medjid	Absolute Sovereignty	Mohammedan	203,384	15,500,000	76.2	Constantinople	787,000
Tuscany	Grand Duchy	Leopold II.	" " : council of state	Roman Catholic	8,553	1,817,466	212.5	Florence	115,675
Two Sicilies	Kingdom	Ferdinand II.	" " "	" "	43,201	9,051,747(4)	209.5	Naples	417,824
Waldeck*	Principality	George Victor	Limited Sovereignty: one chamber	Evangelical	460	58,132	126.3	Arolsen	2,000
Wurtemburg*	Kingdom	William I.	" " : two chambers	Lutheran	7,517	1,733,263(1)	230.6	Stuttgart	46,507
Total					3,826,117	279,664,577	73.1		

24. The comparative density of the population in the different countries of Europe coincides in some measure with the proportional fertility of its various regions; though the one is not always to be regarded as a direct consequence of the other, since many countries—as Spain, Portugal, Turkey, and southern Russia—are capable of supporting a much greater number of inhabitants than they actually possess; while others—as Holland and some of the provinces of Belgium—have, on the contrary, though not naturally fertile, been made by persevering industry the seats of a dense population. The average density of the whole population of Europe is 73 to the square mile. The most thinly inhabited country is Norway, which has only 11 inhabitants to the square mile; Sweden has only 20, and Russia only 28. In Belgium, the most populous country of Europe, there are 402 inhabitants to the square mile; in Saxony, 353; in England, 332, and in Ireland, 202; in Holland, 253; and in France, 173. In some of the smaller states of Germany and Italy the population is also comparatively dense. In general, however, the density of the population decreases from the south toward the north, and in a still greater ratio from the west toward the east. It is on the shores of the Atlantic that the inhabitants of Europe are most thickly clustered.

25. Finally, viewing the physical geography of Europe as a whole, we may regard it as a

* Members of the Germanic Confederation. † Part only in Germany.
‡ Population in 1855, except where otherwise noted—thus (3) for 1853, etc.

great maritime region, of temperate climate, abundantly supplied with inland waters, with a generally fertile soil, and possessing both a contour and surface so diversified as to afford the greatest possible amount of external aid in developing the powers of man and assisting his progress toward civilization. Europe has neither pathless deserts nor inaccessible mountains; and throughout its entire length and breadth—from the shores of the Atlantic to those of the Caspian, and from the Arctic Ocean to the southern extremity of Greece and Italy—it presents no obstacle which the persevering industry of man is not able to overcome—no physical difficulty which he is incapable of surmounting. The Mediterranean Sea has been the highway by which he has advanced, and its peninsulas and islands have served as stepping-stones and resting-places in his course. What the Mediterranean has done for the south, the Baltic and the seas between the British islands and the mainland have accomplished for the north. The south, with its genial climate, its fertile soil, and the protecting shelter of its mountain chains, has nurtured the childhood and youth of man, and its river basins have constituted the seats of his early social institutions and national divisions. His period of manhood has been reared among the more bracing and hardier influences of the north, and has there developed a ruder strength and a more vigorous nature. From the combination, upon the shores of the western ocean, of these diverse yet harmonious elements, has resulted that character for energy and enterprise, for calm determination and resolute endurance which has placed the people of Europe foremost in the path of the world's progress, and given to it the dominion of the earth.

UNITED KINGDOM OF GREAT BRITAIN AND IRELAND.

1. The United Kingdom occupies an archipelago in the northwest of Europe, and consists of the two principal islands of Great Britain and Ireland, and a great number of smaller islands which sometimes singly, but more frequently in groups, line the shores of the other two, or lie in the neighboring seas at no great distance from them. On the north, west, and southwest they lie open to the surges of the Atlantic; on the east they are washed by the North Sea or German Ocean, and on the south by the Atlantic and the English Channel.

2. Taking the most northern point of Unst, in the Shetland Isles (latitude 60° 49′ north), and the most southerly point of England, Lizard Point (latitude 49° 57′ 42″ north), as their extremities north and south; and Lowestoffe (longitude 1° 46′ east) and Dunmore Head (longitude 10° 27′ west) as their extremities east and west—straight lines drawn through these four points will include a space extending over nearly eleven degrees of latitude and rather more than twelve degrees of longitude. In these measurements no account is taken of what are termed the Channel Islands, lying off the coast of France, but forming an integral portion of the United Kingdom.

3. Great Britain and Ireland are separated from each other by the Irish Sea, which near its center attains its greatest width, of about 130 miles; but between Holyhead, in Wales, and Howth Head, in Ireland, it is not wider than 60 miles, and between the Mull of Cantyre, in Scotland, and Fair Head, in Ireland, narrows to about 12 miles.

4. Great Britain, the larger and by far the more important of the two islands, is situated between latitudes 49° 57′ 42″ and 58° 40′ 24″ north. It is the largest island in Europe, and the sixth largest in the world. Its nearest approach to the continent of Europe is at the southeast extremity, where the Strait of Dover, separating it from France, is only 21 miles broad; but on both sides of the strait the distance is rapidly increased. To the west the English Channel widens out till the extremities of England and France are about 100 miles asunder. To the east the German Ocean, where it separates England from Belgium and Holland, is also about 100 miles across; but a little north it suddenly gains thrice that width, and retains it so as to place the east shores of Great Britain at the average distance of 340 miles from the west shores of Denmark and Norway.

5. The contour of the island is so irregular that it seems vain to compare it to a mathematical figure. It has been described as a triangle, with its vertex in the north and its base resting on the south; and it is no doubt true that the land narrows much in the former and attains nearly its greatest breadth in the latter direction; but the east and west coasts, which to complete the figure must represent the sides of the triangle, can not by any force of imagination be made to assume the form of straight lines. The north part of the island, in particular, exhibits on its east coast a succession of large, salient angles; while on the west the coast is broken and ragged in the extreme—the land ever and anon jutting out into the sea, and the sea making deep inroads into the land, as if the two elements had not yet ascertained their boundaries and were contending for mastery.

6. The greatest length of Great Britain, measured on a line bearing north by west, from Rye to Dunnet Head, is 608 miles. The breadth, necessarily modified by the numerous indentations of the coast, varies exceedingly; the longest line which can be drawn across the land in a slanting direction is west-southwest and east-northeast, or between Land's End and Lowestoffe; but the longest line, measured east and west on a parallel, or between St. David's Head and the Maze, is only 280 miles. The breadth is least in the north part of the island. Between the Clyde at Dumbarton and the Forth at Alloa it is only 33 miles; in the Oikel, which falls into Dornoch Firth, the tide ascends until it is within 18 miles of the west coast; and the remarkable chain of lochs which stretches across the island leaves so little land intervening between the opposite coasts that the communication left unfinished by nature has been completed by art.

7. Ireland lies to the west of Great Britain. It nowhere extends so far as either the north or south extremities of that island, but occupies an intermediate space between latitudes 51° 25′ and 55° 23′ north, its northern extremity being on the same parallel as the town of Alnwick, and its southern extremity being opposite to Bristol Channel, nearly in the latitude of London. East and west it lies between 5° 30′ and 10° 40′ west. Its shape is much more regular than that of Great Britain, and bears a considerable resemblance to a rhomboid, two sides of which are nearly due north and south, while the other two take a slanting direction between west-southwest and east-northeast. The greatest diagonal of the rhomboid is between Mizzen Head, in Cork, and Fair Head, in Antrim, about 300 miles—the greatest length, measured on a meridian (near 8° west), is 230 miles, and the greatest breadth, measured on a parallel (about 54½° north), is 180 miles. The breadth across the center is nearly 165 miles. Owing to the compactness of its form, however, Ireland does not exhibit such variations in breadth as exist in Great Britain; but the breadth from Galway to Dublin is not 110 miles; and the shortest breadth of all, between Ballyshannon and Dundalk, is only 85 miles. One remarkable fact is that, notwithstanding the general compactness of this island, its opposite coasts and arms of the sea are so conveniently situated in regard to each other, that there is not a spot on its surface which is not in one direction or other within fifty miles of the ocean.

8. The following table exhibits a view of the extent and population of the several grand divisions of the Kingdom.

Countries.	Area, sq. m.	Population (1851).	Pop. to sq. m.	Chief Towns.	Popula.
Great Britain:					
England	50,922	16,921,888	332	London	2,362,236
Wales	7,398	1,005,721	136	Merthyr-Tydvil	63,080
Scotland	31,324	2,888,742	92	Edinburgh	160,302
	89,644	20,816,351	232		
Islands in the British Seas:					
Guernsey, etc.	50	33,719	674	St. Peter's	? 1,000
Jersey	62	57,020	919	St. Helier	29,741
Man	282	52,387	186	Castletown	2,531
Ireland	32,513	6,551,970	202	Dublin	258,361
Army, Navy, etc.	—	225,916	—		
Total	122,551	27,737,363	226		

POPULATION AT DECENNIAL PERIODS.

Countries.	1801.	1811.	1821.	1831.	1841.	1851.
Great Britain:						
England	8,350,859	9,553,021	11,281,883	13,090,523	14,997,427	16,921,888
Wales	541,677	611,235	718,358	806,274	911,705	1,005,721
Scotland	1,608,420	1,805,864	2,091,521	2,364,386	2,62[illegible],184	2,888,742
	10,500,956	11,970,120	14,091,757	16,261,183	18,529,316	20,816,351
Islands in the British Seas:						
Guernsey, etc. }			20,827	26,128	23,521	33,719
Jersey }	78,000	80,000	28,600	36,582	47,544	57,020
Man }			40,081	41,000	47,975	52,387
Ireland	—	5,937,856	6,801,827	7,767,401	8,175,124	6,551,970
Army, Navy, etc.	470,598	640,500	307,790	277,017	216,079	225,916
Total	—	18,628,476	21,290,882	24,409,311	27,044,459	27,737,363

—from the above it will be seen that Great Britain has doubled its population in 50 years, and that, notwithstanding the great falling off in Ireland, the total population of the Kingdom increased in the last decade.

ENGLAND AND WALES.

9. England and Wales, forming the southern and larger portion of the island of Great Britain, are situated between latitudes 49° 58′ and 55° 46′ north, and longitudes 1° 46′ east, and 5° 42′ west; and are bounded on the north by Scotland, on the west by the Irish Sea, on the southwest by the Atlantic Ocean, on the south by the English Channel and Strait of Dover, and on the east by the North Sea or German Ocean.

10. The contour of this section of the island is very irregular, the coast-line presenting an almost uninterrupted succession of curves, bays, estuaries, and headlands, but its general shape may be described as that of a triangle, the base of which has its extremities at Land's End and South Foreland, while the sides are formed by lines drawn from those two points to the town of Berwick. The triangle thus assumed has a base of 317 miles, the line on the east 345 miles and on the west 425 miles; and hence a perimeter of 1,087 miles. These measurements, however, only distantly approximate the truth, and when, instead of assuming imaginary lines, the distances between the principal headlands are measured, their aggregate amount gives a perimeter of 1,200 miles; and when the actual curvature of the coast is traced, the perimeter is found to be not less than 2,000 miles. The space thus inclosed has a length, measured on a meridian, of 365 miles; its maximum breadth, on a parallel, is 280 miles, but in the north the breadth diminishes to 60 miles.

11. The loftiest heights of England and Wales are situated at no great distance from the west shores, and consist, not so much of a continuous chain, as of a succession of mountains and hills, stretching with some interruptions from north to south, and throwing out numerous branches on both sides, but particularly to the west, where all the culminating summits are found. The north portion of this range has received the name of the Pennine chain, and is properly a continuation of the Cheviot Hills. Commencing at the Scottish border, it proceeds south for about 270 miles, gradually lowering till, in Derby and Stafford, it assumes the form of an elevated moorland plateau. Its principal offsets to the east are in Northumberland and Durham, where they stretch to the coast, form the moorlands of those counties, and separate the valleys of the Tyne, Wear, and Tees. Several minor offsets proceed into the great plain of Yorkshire, and are finally lost in it. The Ouse, and numerous other streams by which this plain is so liberally watered, have also their sources in the main chain.

12. But by far the most important offsets are those of the west, including the lofty mountain masses which, from being most largely developed in Cumberland, are sometimes separately classed under the name of the Cumbrian range. This range, which links with the Pennine chain on the east borders of Westmoreland, covers a considerable part of that county,

stretches across it, and almost immediately after passing its border attains, in Scafell, the height of 3,166 feet. The heights next to it are Helvellyn, 3,055 feet, and Skiddaw, 3,022 feet; and several others nearly equal these, and usually retain their snow-caps from six to eight months in the year.

13. The proximity of these mountains to the west coast, and the barrier interposed by the principal Pennine chain on the east, make it impossible for them to be either the sources or the feeders of any lengthened streams, and hence, perhaps, it is that having no immediate outlet for the vast quantity of moisture which they necessarily attract from the surcharged clouds of the Atlantic, they have accumulated it in a number of magnificent reservoirs, which give a peculiar charm to the romantic scenery of the district.

14. The distance of the Pennine chain from the west coast widening considerably as it proceeds southward, furnishes space for the course of two important streams—the Ribble, the estuary of which in early times, before encroaching sands had nearly choked its entrance, formed an admirable roadstead, and the Mersey, at whose mouth an insignificant haven of the last century has rapidly grown up into the second commercial port of the Kingdom.

15. The Pennine chain with its appended Cumbrian range is succeeded by one which surpasses it both in the loftiness of its mountains and the extent of space covered by them. Viewed as a central portion of the great longitudinal chain, it properly begins where the northern portion terminates, in the Derby and Stafford moorlands, and proceeds southward in the line of the Wrekin and other hills of Salop, the Malvern Hills between Hereford and Worcester, and the Cotswold Hills in Gloucester. These several hills are not remarkable for their elevation, but owing partly to their central position and partly to the extent of surface which they occupy, they constitute one of the most important watersheds of the country, and furnish several of its largest rivers with their most important supplies. Still, however, the great nucleus of the range must be sought much farther to the west, where it covers the greater part of the principality of Wales, and has been designated, from its ancient name of Cambria, as the Cambrian range. Its principal ridge stretches through Carnarvon from north-northeast to south-southwest, ascending gradually from each extremity till near its center it attains, in Snowdon, 3,571 feet, the culminating point in south Britain. Plinlymmon, in the southwest of Montgomery, is much inferior in height, being only 2,463 feet. In mass, however, it surpasses Snowdon and every other mountain of the range, and may justly claim precedence of them all, as the source of the Severn.

16. The last part of the longitudinal chain has received the name of the Devonian range. It commences in the Mendip Hills of Somerset, and thence pursues a southwest direction through that county and the counties of Devon and Cornwall to the Land's End. Its culminating point, Yestor Beacon, near Okehampton, in Devon, is 2,077 feet, and the wild and desolate tract of Dartmoor forest, belonging to this range and forming one of its most remarkable features, is said to have an elevation of 1,700 feet. The average height of the range falls far short of this, and can not be estimated higher than 1,000 feet.

17. In addition to the principal ranges which have now been mentioned, there are a number of others which, though of inferior elevation, are so distinctly marked and have so much influence in determining the general features of the country, that a distinct idea of it can not be obtained without adverting to them. One of these, which may be considered as a continuation of the Cotswold Hills, proceeds in a northeast direction between Warwick and Leicester on the left, and Oxford, Nottingham, and Rutland on the right, forming the principal watershed between the basins of the Wash and the Humber. Most of the other ridges may be considered as having a common point of departure in Wilts—the most southerly, commencing near Salisbury, proceeds eastward through Hants and Sussex, inclining gradually to the south till it reaches the coast near Beachy Head. Another ridge, to the north of the former, takes a direction nearly parallel to it across the north of Hants and the centers of Surrey and Kent, finally bending round to the southeast and reaching the coast at Folkestone. The third and longest ridge of all is very circuitous; first describing nearly a semicircle in the northern part of Wilts, it stretches east across the center of Berks, then northeast through Oxford and Buckingham, and between Bedford and Hertford, and Cambridge and Essex; and on reaching the borders of Suffolk it takes a northern direction through that county and the west of Norfolk till it reaches the south shore of the Wash. Though lost beneath that estuary, the hills which commence almost opposite to it on the north shore are evidently its continuation. Its direction is now north-northeast, through the east of Lincoln to the south bank of the Humber, at Ferriby; re-appearing on the opposite side of the river, it proceeds northward through York, where it takes the name of the Hambledon Hills, and at last spreads out into a large tract of moorlands.

18. The principal and secondary ridges above described, and forming what may be called the framework of the country, give shape and limits to its valleys and plains, and determine the course of its rivers. In the north parts of the country the distance between the shores is so narrow that there is no room for the formation of an extensive basin, and hence the drainage is effected by a number of comparatively small streams which, instead of communicating with each other, retain their own independent channels, and proceed directly to the sea. The same rule holds in the south, where, by the interposition of transverse ridges, only a very limited tract slopes so as to send its waters to the English Channel. The extremities of the country being thus excluded, its basins are necessarily confined to its more central portion. The most important of these are the basins of the Thames, Wash, and Humber belonging to the German Ocean, and the Severn belonging to the Atlantic.

19. The basin of the Thames has its greatest length from west to east 130 miles, and its average breadth about 50 miles. It commences at the Cotswold Hills: on the south it is bounded by the narrow tract which forms the north basin of the English Channel, and in which the Avon is the principal stream; on the west by the basin of the Severn; on the north chiefly by the basin of the Wash, but partly also by the small independent basins of the Crouch and Blackwater in the east of Essex. Its area is 6,160 square miles.

20. The basin of the Wash, consisting of the subordinate basins of the Great Ouse (2,960 sq. m.), Nen (1,132 sq. m.), the Welland (708 sq. m.), and the Witham (1,050 sq. m.), all which rivers empty themselves into that estuary, is of an irregular shape. Its south and larger portion, including the whole three first-mentioned basins, is irregularly oval; while the north portion, confined to that of the Witham, is nearly square. It is bounded southeast by small independent basins, chiefly those of the Stowe and Yare; south by that of the Thames; west by those of the Thames and Severn, and northwest and north by that of the Humber. Its whole area is computed at 5,850 square miles.

21. The basin of the Severn consists of two distinct portions lying on its opposite banks—that on the right bank is of an irregular oval shape, and has for its principal tributaries the Tame and the Wye. The portion on the left bank borders in the north on the basins of the Dee and Mersey, and in the east on those of the Humber and Thames, and with the exception of its east part, which projects far between the basins of the Ouse and Humber, and is drained by the Upper Avon, consists of an irregular tract, stretching first from west to east and then from north to south, and so narrow as not to average above 12 miles, and sometimes not to exceed even, in the lower part of its course, seven miles. On this bank, accordingly, the present stream has no tributary of the least consequence with the exception of the Upper Avon, already mentioned, and the Lower Avon, which only joins it at its estuary. The area of the whole Severn basin is 8,580 square miles.

22. The next basin, that of the Humber, has the largest area of all, namely, 9,550 square miles. It forms a quadrilateral figure, about 145 miles long, and with a maximum width of 85 miles. In the northwest, opposite to Morecombe Bay, it approaches to within 22 miles of the west coast; and consists of the three basins of the Humber proper (1,178 sq. m.), the Trent (4,082 sq. m.), and the Ouse (4,290 sq. m.), and receives the drainage of one sixth of the whole surface of England and Wales. On the north it is bounded by the basin of the Tees; on the west by small independent basins, of which the largest are the Ribble and the Mersey; on the southwest and south by that of the Severn, and on the southeast by that of the Wash. The extent of the minor basins of the country are—that of the Mersey 1,748, South Avon 1,210, Yare 1,180, Tyne 1,100, Eden 995, Dee 862, Tees 744, Ribble 720, Parret 653, Ex 643, Tamer 603, and Towy 506 square miles.

23. The only part of England in which lakes are numerous, is the group of the Cumbrian Mountains. The largest of them is Windermere, ten miles long by a mile wide; Ulleswater, the next in magnitude, is eight miles long and three fourths of a mile wide, and Coniston has a length of six miles and a breadth of half a mile. The smaller lakes found in the same region are Wast Water, Ennerdale, Buttermere, Crummock, Lowes Water, Derwent Water, etc., all situated on the west and northwest slopes of the mountain tract. Hawes Water (as well as Ulleswater) lies on the northeast side of the mountains, and Rydal Water, Grassmere, and Esthwaite Water in the valleys opening toward the south, which is also the direction of Windermere and Coniston; nearly all of these are long and narrow or else oval-shaped bodies of water. Numerous waterfalls occur in this district: the principal are—Scale Force, beside Crummock Water, 190 feet high; Barrow Waterfall, 124 feet; and Lodore Waterfall, 100 feet, the two latter on the east side of Derwent Water. Several small lakes also occur in Huntingdon County, the principal of which are Whittlesea, Ramsay, and Ugg.

24. The largest lake in Wales is Bala (4 miles long), out of which flows the river Dee. Llanberris, on the northwest side of the Snowdon group, consists of an upper and a lower lake, both long and narrow, and discharging their waters by the Seiont, into Menai Strait. But lakes are not generally numerous in the Welsh mountain system, and most of those which occur are of very small size. The largest lake in south Wales is Safaddan or Brecknock Mere (to the southeast of the town of Brecknock), about three miles long and a mile wide.

25. England and Wales admit of being divided into three geological districts—a western, middle, and eastern. The western district is the most ancient—it consists partly of crystalline, but to a far greater extent of sedimentary, rocks. The crystalline rocks occur chiefly in the northwest part of north Wales, where they are composed of varieties of trap; and in Cornwall and Devon, where they consist of granite, which forms the extremity of the island at Land's End, disappear, and again, as if by a succession of bursts, pierce the surface, and finally spread out, covering the greater part of Dartmoor forest. The oldest sedimentary rocks belong to the Silurian system, so called from being most largely developed in that part of Wales supposed to have been occupied by the ancient Silures, and composed of various marls, limestone, slate, sandstone, and conglomerates. It is the oldest series in which remains of animal and vegetable life have been discovered. Immediately above it, and not unfrequently grouped along with it, is the Devonian series, which not only appears under its own name in Devon, which is almost entirely composed of it, but is supposed to have its equivalent in the old red sandstone, which, commencing on the borders of the Silurian series in Wales, spreads over almost the whole counties of Radnor and Hereford, and a great part of Shropshire and Monmouth. In calling the western the most ancient district, an exception must be made of the Welsh and Cumberland coal-fields, which of course belong to the carboniferous system. To this system all the strata of the central district belong. It may be considered as commencing in the mountain limestone, in which the richest veins of lead are found, and terminating in the new red sandstone, sometimes called the saliferous series, from the extensive beds of rock-salt and the great number of brine springs which it contains. Between these extremes all the workable seams of coal and all the best seams and bands of ironstone are situated. The central district, thus limited, does not extend farther south than the Bristol Channel, nor as a mineral field farther east than a line drawn north through the towns of Nottingham and Sunderland, and hence leaves both to the east and south a space which far exceeds it in extent, and to which we have given the name of the eastern district. The rocks belonging to it are very numerous, and have been classified in ascending order under the name of the oolitic series, of which the limestones of Portland, Oxford, and Bath, composed of rounded grains not unlike the roe of a fish, are characteristic specimens; the Wealden series, largely developed in the Weald of Sussex, and rich in the remains of animals bred on land, in fresh water, and estuaries; and the cretaceous series, composing numerous secondary ridges of the island, and conspicuous chalky cliffs. Above these are the tracts of diluvial gravels, sands, and clays, in which the remains of existing animals of warmer climates are often found; and higher still, though the boundary is not well defined, alluvial tracts, the formation of which, by natural or artificial processes, may still be witnessed.

26. The mineral riches of England and Wales are, in proportion to their extent, superior to those of any other country of the globe. The precious metals, gold and silver, are indeed wanting, or only occur in small and unimportant quantities; but the absence of these is more than compensated by the great abundance of nearly all the more useful productions of the

mineral kingdom, including iron, tin, copper, lead, zinc, coal, salt, and a variety of others of less importance. The northern, central, and western parts are the chief localities of mining industry, and both iron ore and coal occur in various districts through the whole of this extensive tract of country. Both tin and copper are more abundantly produced in south Britain than elsewhere in Europe; lead is abundant in the hilly regions of England and north Wales, and zinc is extensively worked in the same districts. Vast beds of rock-salt and also brine springs occur in Cheshire, and brine springs also exist in other parts of England. Besides those already mentioned, a great number of other mineral products occur, as antimony, manganese, plumbago, alum, fuller's earth, potter's clay, arsenic, etc.; and limestone occurs abundantly in all the mineral districts. In fine, this section of Great Britain furnishes nearly the whole of the tin, nearly half the quantity of copper, and one third of the iron produced in Europe; while the quantity of coal annually raised is twice as great as the total produce of all other parts of the world.

27. Situated near the center of the temperate zone, where heat and cold are seldom in extreme, and are greatly modified by the seas which wash its shores, this portion of Great Britain enjoys a climate under which, if ordinary care be used, the most valuable productions of the vegetable kingdom are easily matured, and animal life also, not only in its lower grades, but in man himself, grows vigorously and assumes its finest forms. In accordance also with the excellence of the climate are the beauty of the scenery and the fertility of the soil. It is true, indeed, that some districts are covered with rugged, sterile mountains or elevated tracts of barren moor, and that in others low, monotonous flats occur where much of the rain that falls becomes permanently stagnant, or slowly finds its way into sluggish streams which are scarcely able to force a passage to the sea. These, however, are only exceptions, and even serve by contrast to render the general rule more conspicuous. After deducting all the land which can be considered absolutely waste, there still remains, out of 58,000 square miles, no less than 51,000 which are available for cultivation, and consisting generally either of rural districts, where hill and valley, woods and rivers, magnificent domains, fields and meadows of the richest verdure, unite in forming landscapes of unrivaled beauty, or of industrial districts covered with large and populous towns, in which all the great branches of manufactures and commerce have fixed their chosen seat. Thus it would be difficult, if not impossible, to point out a portion of the earth's surface of equal extent for which nature and art have done so much, or in which civilization has been crowned with so great success.

28. England is divided into forty and Wales into twelve counties:

Counties.	Area, sq. m.	Popula. (1851).	P. to sq.m.
Bedford	462	124,478	269
Berks	705	170,065	241
Buckingham	730	163,723	224
Cambridge	818	185,405	226
Chester	1,105	455,725	412
Cornwall	1,365	355,558	260
Cumberland	1,565	195,492	125
Derby	1,029	296,084	288
Devon	2,589	567,098	218
Dorset	987	184,207	186
Durham	973	390,997	399
Essex	1,657	369,318	222
Gloucester	1,258	458,805	364
Hereford	836	115,489	138
Hertford	611	167,298	274
Huntingdon	361	64,183	178
Kent	1,627	616,766	375
Lancaster	1,905	2,031,236	1,064
Leicester	803	231,308	287
Lincoln	2,776	407,222	146
Middlesex	281	1,886,576	6,683
Monmouth	576	157,418	272
Norfolk	2,116	442,714	209
Northampton	985	212,380	216
Northumberland	1,952	303,968	154
Nottingham	824	270,427	329
Oxford	739	171,139	231
Rutland	150	22,983	154
Salop (*Shropshire*)	1,291	229,341	178
Somerset	1,636	443,916	271
Southampton (*Hants*)	1,672	405,870	249
Stafford	1,138	658,716	585
Suffolk	1,481	337,215	228
Surrey	748	683,082	910
Sussex	1,461	336,844	230
Warwick	881	475,013	539
Westmoreland	758	58,287	77
Wilts	1,352	254,221	188
Worcester	733	276,926	375
York, *East Riding*	1,201	220,983	182
" *City*	4	36,308	9,075
" *North Riding*	2,109	215,214	102
" *West Riding*	2,669	1,325,495	496
Total of England	50,922	16,921,888	332
Anglesea	302	57,327	189
Brecon	719	61,474	86
Cardigan	693	70,796	102
Carmarthen	957	110,632	117
Carnarvon	579	87,870	151
Denbigh	603	92,583	153
Flint	289	68,156	235
Glamorgan	856	231,849	268
Merioneth	602	38,843	65
Montgomery	755	67,335	89
Pembroke	628	94,140	149
Radnor	425	24,716	58
Total of Wales	7,398	1,005,721	135

29. At the period of the Roman invasion, England and Wales was possessed by various tribes, supposed by some to have been Celts, and by others a mixture of the Celtic and Gothic races. Their descendants still form the chief bulk of the people of Wales and Cornwall, but their language is extinct except among the Welsh. The southeast at that period was occupied by the Belgæ, a branch of the Teutonic race from Gaul, which had dispossessed the natives and driven them into the interior. After the fall of the Roman power the southeast and midland districts were subdued by the Jutes and Saxons, and Norfolk and Suffolk by the Angles; while the north was overrun, sometimes possessed and largely colonized, by the Danes—all kindred members of the Gothic or Teutonic family. The Normans subdued England in the eleventh century, and subsequently commingling with the Jutes, Danes, and Angles, formed the present intermixture, the modern English and the English language. For a long period, and until lately, however, the people of each county or minor district had dialects peculiar to themselves; but by the diffusion of education, intercommunication, and other causes, the mother tongue has become more uniform, and one language, with slight deflections only, is now spoken in every part. The groundwork of the English language is Saxon, with a large addition from the Greek, Latin, and French. In short, the modern English are of very mixed origin, and their language, from that circumstance, contains probably a greater number of different elements than any other of the modern tongues.

30. The amount of the population of England and Wales prior to the year 1801 can not be ascertained with any degree of certainty. McCulloch conjectures that at the era of the Conquest it amounted to about 2,150,000; Mr. Chalmers estimates its enumeration in 1377 at 2,350,000, and the celebrated political arithmetician, Gregory King, in 1696, stated it at 5,500,000. Its amount at the commencement and at decennial periods of the last century is thus stated by Howell and Finlaison, two substantially reliable statisticians:

According to Howell.				According to Finlaison.			
1700	5,475,000	1750	6,467,000	1700	5,134,516	1750	6,039,654
1710	5,240,000	1760	6,736,000	1710	5,066,337	1760	6,479,730
1720	5,565,000	1770	7,428,000	1720	5,345,351	1770	7,227,586
1730	5,796,000	1780	7,953,000	1730	5,687,993	1780	7,814,827
1740	6,064,000	1790	8,675,000	1740	5,829,703	1790	8,540,738

The enumerations since the last period are certain, having been taken under the orders of government, and at definite periods:

Census Years.	England. Males.	England. Females.	England. Total.	Wales. Males.	Wales. Females.	Wales. Total.	Grand Total.
1801	3,997,487	4,353,372	8,350,859	257,243	284,429	541,677	8,892,536
1811	4,582,510	4,970,811	9,553,021	291,395	319,840	611,235	10,164,256
1821	5,493,798	5,783,085	11,281,883	351,521	366,832	718,353	12,000,236
1831	6,376,584	6,713,939	13,090,523	394,612	411,662	806,274	13,896,797
1841	7,325,692	7,671,735	14,997,427	447,764	463,941	911,705	15,914,148
1851	8,281,734	8,640,154	16,921,888	499,491	506,230	1,005,721	17,927,609

From the table above, it appears that the decennial increase since 1801 has been consecutively 14.3, 18.1, 15.8, 14.5, and 12.6 per cent.; and that the density of population in 1801 was 153, and decennially thereafter 176, 207, 239, 274, and 309 to the square mile. Hence the population has somewhat more than duplicated in the past fifty years.

31. The population is very unequally distributed—Wales is thinly inhabited throughout—and only the counties of Flint and Glamorgan have more than 200 inhabitants to the square mile, while the density of the whole of that section is only 135 to the square mile. The least populous of the English counties is Westmoreland, which has only 77 to the square mile. Cumberland has but 125, and the South Riding of York only 102 to the square mile. The counties of Middlesex and Surry, which contain London, the metropolis of the Empire, are the seats of the most dense population: Middlesex has 6,683. Next in order of populousness are Lancashire, which has 1,064, Warwick, which has 539, and the West Riding of Yorkshire, which has 496 to the square mile. The southern district of Lancashire includes the large cities of Liverpool and Manchester. Of the mining counties, those which include and adjoin the principal coal-fields, are all the seats of a considerable population: Durham has 399, Stafford 535, Cheshire 412, Derby 288, Nottingham 329, Leicester 287, Worcester 575, and Gloucester 364 to the square mile. These, with Lancashire, Warwick, the West Riding of Yorkshire, and the metropolis, embrace the principal seats of manufacturing industry. The counties of Devon and Cornwall, the population of which is scattered and chiefly confined to the immediate neighborhood of the mines—and which embrace, moreover, a large proportion of unproductive moorland—have respectively 218 and 260 inhabitants to the square mile. In England, therefore, the great centers of population are—London; the country round and about Manchester and Liverpool, in south Lancashire; Leeds, in the West Riding of Yorkshire; Birmingham, and the adjacent parts of Warwick, Worcester, and Stafford; and Newcastle, within the Northumberland and Durham coal basin. In Wales, Merthyr Tydvil and the adjacent parts of Glamorgan, within the limits of the great coal basin, are the most populous districts.

32. Every branch of industry, for which the climate and natural resources of the country render it adapted, is extensively pursued. Until the latter part of the preceding century, agricultural pursuits engaged the attention of the larger portion of the laboring population, and constituted the characteristic feature of the national industry. But since the establishment and rapid growth of the cotton manufacture, the proportion of the inhabitants engaged in manufactures and commercial pursuits has been steadily increasing. The proportion of persons engaged in manufacturing and trade is, in England, about 20 per cent., and in Wales about 10 per cent. of the whole population; and of those engaged in agriculture in England about 8 per cent., and in Wales about 11 per cent. In England, therefore, manufactures and commerce are the characteristic pursuits of the laboring population, while in Wales agriculture predominates. England is, indeed, at the present time, essentially a manufacturing and commercial country.

33. Agriculture has of late years made great progress, owing, chiefly, to an extended system of drainage, and the increasing use of artificial manures, including guano, with town refuse and sewerage, etc. The total quantity of cultivable lands in England and Wales is about 33,000,000 acres, of which about 30,000,000 are in cultivation—about a third under tillage, and two thirds in meadow or pasture. Tillage, or arable husbandry, is pursued chiefly in the east and southeast portions of England; the principal dairy districts cover the south and west, and the central counties are noted for breeding and fattening cattle, etc. In Wales, sheep and cattle (including numerous goats) are pastured on the hills, while tillage and dairy husbandry are carried on in the valleys.

34. The great manufactures of the country are those of woven and felted materials, and metals or hardware; and of these, cotton, wool, and iron are by far the most important. Next in value are the manufactures of leather, silk, linen, glass, and earthenware, watches and jewelry, paper and hats. The various manufactures of beer, spirits, soap, candles, with the different branches of the timber and building trades, ship-building, turning, coach-making, musical implements, etc., are also carried on to a considerable extent, and employ the labor of great numbers of the people. The manufacture of articles of india-rubber and gutta-percha, both of recent introduction, may be referred to as examples of the readiness with which the skilled labor of the artisan population adapts itself to every material presented to the exercise of its industry. Indeed, the skill and ingenuity of her artisans, and the wonderful contrivances of the machinery by which their labors are assisted, have given to England a name and fame as the "workshop of the world," acknowledged in every land.

35. The counties in which the largest proportion of the inhabitants are engaged in manufactures and trade are Lancaster, the West Riding of York, Chester, Warwick, Nottingham, Middlesex, Leicester, Derby, Stafford, and Worcester. These are essentially the manufacturing counties. Lancaster (Manchester, Oldham, Bolton, Ashton, Preston, Blackburn, Bury, Chorley, etc.) is identified with the cotton manufacture; the West Riding (Leeds, Halifax, Bradford, Huddersfield, etc.), with that of woolen goods; Stafford, and the adjacent parts of Worcester and Warwick (Birmingham, Dudley, Wolverhampton, etc.), with the making of iron and hardware; and these three localities represent the great and prominent features in the manufacturing industry of the country.

36. The commerce of England extends to the most distant parts of the globe. It consists for the most part in the import of raw materials and tropical produce, and in the export of manufactured goods—in many cases, in the exports to distant countries in a manufactured state, the fabrics originally brought from these in the condition of native and unwrought material. This is especially the case with the cotton trade, the material of which is wholly derived from foreign countries, and its consumption, in a manufactured state, largely dependent upon foreign markets. The principal ports for the foreign trade are London, Liverpool, Hull, and Southampton.

37. The vast domestic traffic constantly carried on between the different sections of the

Kingdom, is facilitated by numerous roads which, together with canals, navigable rivers, and railroads, intersect the country in every direction; the canals have a length of above 2,300 miles. By means of these the opposite shores of the island are united, and the waters of the principal rivers connected one with another. The river navigation has a length of 2,000 miles or more. The railroad, first introduced in 1830, now (1856) forms a network over the land, and has a total length of 6,447 miles, bringing all the principal towns into communication; and most of these have connected with them lines of electric telegraph. Besides these means of commercial intercourse, innumerable steam-vessels ply along the coasts and on the rivers. Thus a most complete system of locomotion has been established throughout the land, and the internal commerce of the country been established on a broad and permanent basis.

38. England and Wales contain 580 towns of various magnitude, either market-towns, county-towns, or cities. The average population of each is 15,501, or in the aggregate, 8,990,580 inhabitants; being about one half the total population of this part of the Kingdom. London contained in 1851 a population of 2,362,272 souls. Manchester contained 401,321 inhabitants, Liverpool 375,955, Birmingham 232,841, Leeds 172,270, Bradford 149,543, Bristol 137,328, Sheffield 135,310, and Wolverhampton 119,748. The principal towns having between 50,000 and 100,000 inhabitants are—Newcastle with 87,784, Kingston upon Hull 84,690, Oldham 72,357, Portsmouth 72,096, Brighton 69,673, Preston 69,542, Norwich 68,195, Sunderland 67,394, Merthyr-Tydvil (in Wales) 63,080, Bolton-le-Moors 61,171, Leicester 60,584, Nottingham 57,407, Bath 54,240, Plymouth 52,221, and Devonport 50,159. All the places above mentioned are situated within the manufacturing and commercial districts. In the strictly agricultural counties the towns are generally small, the number of inhabitants varying from 2,000 to 8,000 or 10,000.

39. In the following tables the counties are recapitulated in the order of their respective situations, with the names of the principal towns in each. The name of the county town is distinguished by *italics*.

40. The six northern counties of England:

NORTHUMBERLAND....*Newcastle*,*§ 87,784; Tynemouth,* 29,170; Berwick-upon-Tweed,* 15,094; Morpeth,‖ 10,012.
DURHAM.....Sunderland,*§ 67,394; South Shields,*§ 28,974; Gateshead,*§ 25,568; *Durham*,‡‖ 13,188; Darlington,‖ 11,228; Stockton-on-Tees,* 10,459.
CUMBERLAND.....*Carlisle*,*‡§ 26,310; Whitehaven,*§ 18,916; Cockermouth,* 7,275; Penrith,‖ 6,668; Workington,‖ 5,837; Maryport,* 5,698; Keswick (lead pencils), 2,618.
WESTMORELAND.....Kendal,‖ 11,829; *Appleby*,‖ 1,256.
YORKSHIRE.....(West Riding)—Leeds,§ 172,270; Bradford,§ 149,543; Sheffield,§ 135,310; *York*,†‖ 36,303; Halifax,§ 33,584; Huddersfield,§ 30,880; Wakefield,§ 22,065; Dewsbury,‖ 14,051; Barnsley, 13,437; Doncaster (annual races), 12,032; Pontefract, 11,515; Ripon,‡ 6,080; Goole,* 5,001.
" .....(North Riding)—Scarborough,*‖ 12,915; Whitby,*‖ 10,989; Malton, 7,661.
" .....(East Riding)—Kingston-on-Hull,*§ 84,690; Beverley,‖ 8,671; Bridlington,* 6,848.
LANCASHIRE.....Manchester,‡§ 401,321; Liverpool,*§ 375,955; Oldham,§ 72,357; Preston,§ 69,542; Bolton-le-Moors,§ 61,171; Blackburn,§ 46,536; Wigan,§ 31,941; Bury,§ 31,262; Ashton-under-Lyne,§ 30,696; Rochdale,§ 29,195; Warrington,§ 23,363; Burnley,§ 20,828; *Lancaster*,*§ 16,168; St. Helens,*§ 14,866; Chorley,§ 12,684.

—Northumberland, Durham, Lancaster, and the West Riding of York are manufacturing, trading, and mining districts; Cumberland, Westmoreland, and the North and East Ridings of York chiefly agricultural. In Cumberland, however, some manufactures (principally cotton) are carried on at Carlisle, and mining at Whitehaven, etc.

41. The six western counties of England:

CHESHIRE.....Stockport,§ 53,835; Macclesfield,§ 39,048; *Chester*,*‡ 27,766; Birkenhead,*§ 24,285; Runcorn,* 15,047; Congleton, 10,520; Nantwich (salt), 5,426.
SHROPSHIRE.....*Shrewsbury*,‖ 19,681; Madeley,‖ 8,525; Bridgenorth,§ 7,610; Wellington, 4,601.
HEREFORDSHIRE.....*Hereford*,‡‖ 12,108; Leominster,‖ 5,214; Ledbury, 4,624.
MONMOUTHSHIRE.....Newport,*§ 19,323; *Monmouth*,‖ 5,710; Abergavenny, 4,797; Chepstow,* 4,332.
GLOUCESTERSHIRE....Bristol,*‡ 137,328; Stroud,§‖ 36,535; Cheltenham,§ 35,051; *Gloucester*,*‡ 17,572.
SOMERSETSHIRE.....Bath,*‡‖ 54,240; *Taunton*,‖ 14,176; Bridgewater,*‖ 10,317; Frome,‖ 10,148; Wells,‡ 4,736; Yeovil, 5,985; Glastonbury, 3,125.

—Cheshire, Shropshire, Monmouthshire, and Gloucestershire are in part manufacturing and in part agricultural counties. Herefordshire and Somersetshire are entirely agricultural.

42. The fourteen midland counties of England:

STAFFORDSHIRE.....Wolverhampton,§‖ 119,748; Stoke (with Burslem),§ 84,027; West Bromwich,§ 34,591; Sedgley,§ 29,447; Walsall,§ 25,680; Bilston,§ 23,527; Wednesbury,§ 11,914; *Stafford*,§‖ 11,829; Newcastle-under-Lyme,§ 10,569; Litchfield, 7,012.
DERBYSHIRE.....*Derby*,§‖ 40,609; Belper,§ 10,082; Chesterfield,‡‖ 7,101.
NOTTINGHAMSHIRE....*Nottingham*,§ 57,407; East Retford,§ 46,054; Radford,§ 12,037; Newark,§‖ 11,330; Mansfield,§‖ 10,012.
LEICESTERSHIRE.....*Leicester*,§ 60,584; Loughborough,‖ 10,900; Hinckley, 6,111; Ashby-de-la-Zouch, 6,230; Melton-Mowbray, 4,391.
WARWICKSHIRE.....Birmingham,§‖ 232,841; Coventry,§‖ 36,812; Leamington,§ 15,692; *Warwick*,‖ 10,973; Rugby,‖ 6,313; Nuneaton, 4,859; Stratford-on-Avon (birth-place of Shakspeare), 3,372.
WORCESTERSHIRE.....Dudley,§ 37,962; *Worcester*,‡§ 27,528; Kidderminster,§ 18,462; Bromsgrove,§ 10,308; Stourbridge,§ 7,848; Evesham, 4,605; Droitwich, 3,125; Stourport, 2,993.
OXFORDSHIRE.....Oxford,‡‖ 27,843; Banbury,‖ 8,715; Woodstock, 7,983; Henley-on-Thames, 3,733; Witney, 3,009.
BUCKINGHAMSHIRE...*Aylesbury*,‖ 26,794; High Wycombe,‖ 7,179; Great Marlow,‖ 6,523; Chesham, 6,098; Eton, 3,796.
MIDDLESEX.....LONDON,*‡§‖ with Westminster, etc., 2,362,272; Hammersmith, 17,760; *Brentford*,‖ 8,870; Harrow-on-the-Hill, 4,951; Hampton, 4,802.
HERTFORDSHIRE.....*Hertford*,‖ 6,605; St. Albans,‖ 7,000; Ware, 4,882; Watford, 3,800; Hitchin, 3,400; Barnet, 2,380.
BEDFORDSHIRE.....Luton,‖ 12,787; *Bedford*,‖ 11,693; Leighton-Buzzard, 6,874; Biggleswade, 4,460; Dunstable, 3,589; Ampthill, 2,001; Woburn, 2,049.
HUNTINGDONSHIRE....*Huntingdon*,‖ 6,219; St. Ives, 2,522, Stilton (cheese), 1,620.
NORTHAMPTONSHIRE..*Northampton*,§ 26,657; Peterborough,‡‖ 8,672; Wallingborough, 5,601; Daventry, 4,430.
RUTLANDSHIRE.....*Oakham*,‖ 2,800; Uppingham, 2,068.

—the first five counties are principally manufacturing districts. Worcestershire is partly manufacturing, but chiefly agricultural, and the remaining counties, with the exception of Middlesex, which contains the metropolis, are almost wholly agricultural.

43. The five eastern counties of England:

LINCOLNSHIRE.....*Lincoln*,‡‖ 17,536; Boston,*‖ 17,518; Great Grimsby,*‖ 12,263; Grantham,‖ 10,873; Louth,‖ 10,467; Stamford,‖ 8,933; Gainsborough, 7,506.
CAMBRIDGESHIRE.....*Cambridge*,‖ 27,815; Wisbeach,‖ 10,594; Ely,‡ 6,176; March, 4,171; Newmarket, 3,356.
NORFOLK.....*Norwich*,‡§ 68,195; Yarmouth,* 30,879; Lynn-Regis,* 19,355; Wymondham, 5,177; Thetford, 4,075.
SUFFOLK.....*Ipswich*,*‖ 32,914; Bury-St.-Edmund's,‖ 13,900; Lowestoffe,* 6,658; Sudbury, 6,043; Woodbridge, 5,161; Bungay, 3,841
ESSEX.....Colchester,*‖ 19,443; Stratford,‖ 10,586; *Chelmsford*,‖ 6,033; Malden, 4,558; Harwich,* 4,451; Braintree, 4,340

—all wholly agricultural, excepting Norfolk, in which some manufacture of woolen goods is pursued in and around Norwich.

* Sea-ports † Sees of archbishops. ‡ Sees of bishops. § Manufacturing towns. ‖ Trading towns.

44. The nine southern counties of England:

KENT.....Greenwich (included in London), 99,365; Woolwich,*§ 32,367; Chatham,*§ 28,424; Deptford,*§ 27,896; Dover,* 22,244; *Maidstone*,‖ 20,801; Canterbury,†‖ 18,398; Gravesend,* 16,633; Rochester,*‡ 14,938; Hythe,* 13,164; Ramsgate,* 11,338; Tunbridge-Wells,§ 10,587; Margate,* 9,107; Folkestone,* 7,549; Deal,* 7,067; Dartford, 6,224; Faversham,* 4,621.
SURREY.....Southwark§ (included in London); Croydon,‖ 10,260; Richmond, 9,065; *Guildford*,‖ 6,740; Kingston, 6,279; Epsom, 3,390.
SUSSEX.....Brighton,* 69,673; New Shoreham,* 30,553; Hastings,*‖ 17,011; *Lewes*,‖ 9,503; Chichester,‡ 8,662; Horsham, 5,947; Worthing, 5,370.
BERKSHIRE.....*Reading*,‖ 21,456; Windsor (castle), 9,596; Sandhurst, 8,150; Newbury, 6,574; Abingdon, 5,954; Maidenhead, 3,607.
HAMPSHIRE.....Portsmouth*§ (including Portsea and Gosport), 72,096; Southampton,*‖ 35,305; Yarmouth,*‖ 30,879; *Winchester*,‡ 13,704; Newport, 8,047; Ryde, 7,147; Cowes,* 4,786.
WILTSHIRE.....*Salisbury*,‡‖ 11,657; Trowbridge,‖ 10,157; Bradford, 8,959; Westbury, 7,029; Devizes, 6,554; Warminster, 4,220; Marlborough, 3,908.
DORSETSHIRE.....Weymouth* (with Melcombe-Regis), 9,458; Poole,* 9,255; Bridport, 7,566; Wareham, 7,218; *Dorchester*, 6,394; Blandford-Forum, 3,948.
DEVONSHIRE.....Plymouth,*§ 52,221; Devonport,*‖ 50,159; *Exeter*,‡‖ 40,688; Barnstaple,*§ 11,371; Tiverton,§ 11,144; Tavistock, 8,086; Brixham, 5,926; Biddeford,* 5,775; Exmouth, 5,123; *Dartmouth*,* 4,508.
CORNWALL.....*Truro*,§ 10,738; Penzance,* 9,214; Falmouth,* 8,151; Redruth, 7,095; St. Agnes, 6,674; Camborne, 6,547; St. Ives,* 6,525; St. Austell, 3,565; Launceston, 3,397.

—all agricultural except Devonshire and Cornwall, which are mining counties, and Wiltshire, in a portion of which the woolen manufacture is carried on.

45. The six counties of North Wales:

ANGLESEA.....Almwich,‖ 5,813; Holyhead,* 5,622; *Beaumaris*,* 2,599.
CARNARVONSHIRE.....Bangor,*§ 9,564; *Carnarvon*,‖ 8,674; Conway, 2,105.
DENBIGHSHIRE.....Wrexham,‖ 15,220; *Denbigh*, 5,498; Llangollen, 5,260.
FLINTSHIRE.....Holywell, 5,740; Mold, 3,434; Flint, 3,296; *St. Asaph*,‡ 2,041.
MERIONETHSHIRE.....Dolgelly, 2,041; Barmouth, 1,673; *Bala*, 1,255.
MONTGOMERYSHIRE....Welshpool, 6,564; Newtown, 6,371; *Montgomery*, 1,223.

—all agricultural counties; Flintshire and Anglesea also mineral.

46. The six counties of South Wales:

CARDIGANSHIRE.....Aberystwith,*‖ 5,189; *Cardigan*,* 3,876.
RADNORSHIRE.....*New Radnor*, 6,653; Presteigne, 2,207; Kneighton, 1,566.
BRECKNOCKSHIRE.....*Brecknock* or Brecon,‖ 6,070; Hay, 1,952; Builth, 1,158.
GLAMORGANSHIRE....Merthyr-Tydvil,§ 63,080; Swansea,*§ 31,461; Cardiff,*‖ 18,351; Neath, 5,841; *Landaff*,‡ 1,821.
CARMARTHENSHIRE....*Carmarthen*,‖ 10,524; Llanelly, 8,710.
PEMBROKESHIRE.....*Pembroke*,‖ 10,107; Haverford West,‖ 6,580; Milford Haven,* 2,837; St. David's,‡ 2,461.

—all, except Glamorganshire, which is chiefly a manufacturing and mining county, agricultural.

47. London, the British metropolis and the largest city of the world, is situated in latitude (St. Paul's) 51° 30′ 48″ north, and longitude 0° 5′ 38″ west from Greenwich. It lies on both



CHEAPSIDE, LONDON.

sides the river Thames. On the north bank, where the principal part stands, in the counties of Middlesex and Essex, the site rises gradually at the rate of 36 feet per mile—on the opposite side the houses cover a nearly uniform and extensive flat, forming parts of the counties of Surrey and Kent.

48. The limits of London, as defined by act of Parliament for parliamentary purposes, are the circumference of a circle the radius of which is of the length of three miles from the General Post Office; but the actual circumference is generally estimated at 36 miles. It includes the cities of London and Westminster, and the boroughs of Tower Hamlets, Southwark, Lambeth, Finsbury, and Marylebone, formerly distinct, but now combined into one mass of houses. This portion of the metropolis has an area of 31,353 acres, and a population of 1,986,991 inhabitants, being 63.37 to each acre. But within the greater limits above indicated are included the parish of Chelsea, and the towns of Deptford and Greenwich, Dulwich, Brixton, Clapham, Battersea, Kensington, Hammersmith, Hampstead, Highgate, Stoke-Newington, etc.; and which, together with parliamentary London, comprise 74,070 acres, or nearly 116 square miles, with an aggregate population (1851) of 2,362,236.

49. The bridges of London are among its principal ornaments and conveniences. Till toward the middle of the last century the Thames, here averaging 1,000 yards in width, was crossed by only one bridge; but now, between Chelsea and the Tower, there are no less than nine. These are—London Bridge (stone), with 5 arches and 928 feet long; Southwark (iron), with 3 arches and 708 feet long; Blackfriars (stone), with 9 arches and 995 feet long; Waterloo (stone), with 9 arches and 1,242 feet long; Hungerford (suspension), with 3 arches and 1,352 feet long; Westminster (stone), with 15 arches and 1,223 feet long; Vauxhall (iron), with 9 arches and 809 feet long, and the new suspension bridges at Battersea and Hammersmith. The distances of these from London Bridge are respectively about 500, 1,350, 2,200, 2,650, 3,350, 4,500, 6,980, and 9,200 yards. The Thames Tunnel, a roadway under the river, is two miles below London Bridge. It consists of a brick cylinder, subdi-

vided into two roadways each 15 feet high and 12 feet broad. At each end is a shaft with 100 steps, by which foot passengers ascend and descend. The traffic approaches are not yet made, so that there is no access for vehicles.

50. St. James' Palace, erected by Henry VIII., at the foot of St. James' Street, is an irregular, dingy-looking brick building; but is well adapted internally for royal levees and drawing-rooms, for which it is now generally used. The sovereign resides at Buckingham Palace,



BUCKINGHAM PALACE.

a noble pile of buildings, facing the west end of St. James' Park. Kensington Palace, situated in Kensington Garden, is a plain brick building, purchased by William III., who made it his favorite residence. Whitehall, of which only the "banqueting-house" remains, is justly regarded as one of the greatest architectural ornaments of London. In front of this palace Charles I. was beheaded. Lambeth Palace, on the Surrey side of the river, opposite the Houses of Parliament, has been for many centuries the residence of the archbishops of Canterbury. It is a brick edifice, and comprises a great variety of styles, from early English downward, and contains a valuable library of 25,000 volumes.

51. Of the parks of London, the largest is Hyde Park, which contains 400 acres, and has, toward the south side, an artificial lake, called the Serpentine, which is spanned by a handsome bridge of five arches, at the entrance of Kensington Gardens, with which Hyde Park communicates at several points, and which are well wooded and finely laid out. St. James' Park extends from Buckingham Palace to the Horse Guards, and covers 83 acres. In its center is an ornamental sheet of water, studded with islets covered with trees and shrubs. The Green Park, 71 acres in extent, lies between St. James' Park on the south and Piccadilly on the north. Regent's Park, on the north side of London, covers an area of 403 acres. Round the park is an agreeable drive nearly two miles long, and an inner circular drive incloses the Botanic Gardens. At the north end are the Zoological Gardens. Victoria Park, recently opened, on the northeast of London, is an immense space, well laid out and planted, and is intended for the recreation of the inhabitants of the eastern suburbs. Battersea Park, also of recent date, is formed on the south bank of the Thames, opposite Chelsea Hospital. These parks have very appropriately been styled the "lungs of the metropolis."

52. The squares of London are numerous, and many of them of great extent and exceedingly elegant, the middle being generally occupied with shrubbery, and many are adorned with statues of sovereigns, warriors, and statesmen. Among the squares deserving of notice may be named—Lincoln's Inn Fields (12 acres), near the center of the metropolis; Eaton, Belgrave (10 acres), Grosvenor, Portman, and Cavendish squares, all in the west end; Russell (10 acres), Bedford, Bloomsbury, Tavistock, and Euston squares, in the north part of the town; and Trafalgar Square at Charing Cross.

53. The most conspicuous public monuments are—the monument on Fish Street Hill, a fluted Doric column, 202 feet high, erected in 1677 in commemoration of the great fire of London; the York column, at the south end of Waterloo Place, a plain Doric pillar of granite, 124 feet high, surmounted by a bronze statue of the Duke of York; the Nelson column, in Trafalgar Square, 176½ feet high, and surmounted by a colossal bronze statue of the hero; and a colossal equestrian statue of the Duke of Wellington, placed on the summit of the grand arch at the top of Constitution Hill, forming the approach to Buckingham Palace, and another of smaller size in front of the Royal Exchange.

54. The vast and magnificent edifice containing the House of Lords and the House of Commons, with the various apartments and offices connected with parliamentary business, is a highly decorated structure in the Tudor-Gothic style, and stands on the north bank of the Thames, between the river and Westminster Abbey, covering an area of about eight acres. The façade which overlooks the river, 900 feet in length, produces a grand effect. The walls are of brick, faced externally with magnesian limestone, and the whole edifice is separated from the river by a terrace of Aberdeen granite. It is paneled with rich tracery-work, and profusely decorated with statues and shields of arms of kings and queens of England from the Conquest to the present time. In the southwest angle is the Victoria Tower, supported upon four pointed arches, 60 feet in height; it is 75 feet square and 340 feet high. There is also a tower in the center, 300 feet high by 60 feet, surmounted by a lantern; and the clock tower at the north end of the edifice, with its richly decorated spire, rises 320 feet. The House of Lords is an apartment 97 feet long and 45 feet wide and high, and is magnificently decorated throughout with carved oak paneling, a profusion of gilding, paintings in fresco, and richly stained-glass windows. The House of Commons is a smaller apartment, fitted up in a much plainer style. The foundation of the building was laid on the 27th April, 1840.

55. The government offices are mostly situated in or near Whitehall. The Treasury, Home Office, and Board of Trade occupy one range of buildings. The Horse Guards and Admiralty are somewhat nearer Charing Cross. The Ordnance Office is in Pall-Mall. Some of the public offices are in Somerset House, an immense pile of buildings, extending between the Strand and the river. The Post-Office is located in St. Martin's-le-Grand, near the center of London, and the Mint stands on Tower Hill. This latter building occupies with its offices and workshops about 90,000 square feet.

56. The Tower, which doubtless formed the nucleus of modern London, lies on the Thames, from which it is separated by a platform. Besides its use as a fortress, the Tower was likewise the residence of several of England's monarchs; but its use as a state-prison, in which kings, statesmen, warriors, and philosophers have been confined, gives it its main interest.

57. St. Paul's Cathedral is the greatest architectural ornament of the city. It occupies the summit of Ludgate Hill; and is 510 feet in length, east and west, while the transept is 250 feet, exclusive of the semicircular portico at each end. The building is crowned with an immense dome and cross, the height of the latter being 404 feet from the ground. Within are the tombs of heroes, statesmen, and philosophers. Westminster Abbey, after St. Paul's, the finest ecclesiastical edifice in London, and one of the best specimens of the pointed style of architecture in the country, dates from the reign of Henry III. and Edward I., when it was erected on the site of the Saxon Minster founded by Sebert. The beautiful chapel at the east end was added by Henry VII. It is 360 feet long, and 195 feet wide within the walls. In this noble edifice the monarchs of Britain have been crowned from the time of Edward the Confessor, and here many of them have been buried. In the south transept are the tombs and honorary monuments of the great English poets from Chaucer to Campbell, whence it is called the "Poet's Corner;" and in other parts are numerous sculptured monuments to statesmen, warriors, philosophers, divines, patriots, and eminent individuals generally, many of whom are interred within its walls. Of other metropolitan churches, the most remarkable are—St. Bartholomew's, in West Smithfield; St. Saviour's, in Southwark; St. Stephen's, Walbrook, and the Temple Church. These churches are remarkable for the purity of their architecture as also for their antiquity. Many others of the older parish churches are also elegant structures, and of these may be specified Bow Church, St. Bride's in Fleet Street, and St. Martin's-in-the-Fields. The churches of the earlier part of the present century are inferior in design, and mostly in debased Grecian style. Those built in more recent years are chiefly adaptations of the Gothic, and give favorable indications of a return to a purer taste. Of the Roman Catholic churches, St. George's Cathedral, in Southwark, is the largest. The churches of other dissenting sects are mostly plain, unpretending buildings. Altogether, it is said there are about 320 churches of the establishment and 280 others belonging to the various dissenting sects.



ST. PAUL'S CATHEDRAL.

58. The public buildings of the city proper are very numerous and important. The Bank of England, the Royal Exchange, and the Mansion House all face toward an open area, near the middle of the city, and in that vicinity is found also the center of bustle and business. The Bank, founded in 1693, fronts on Threadneedle Street, and forms a low, flat, insulated, irregular parallelogram, covering four acres of ground. Opposite this stands the Royal Exchange, an extensive and ornate edifice, surrounding an open interior quadrangle, in which the London merchants meet. In the center of this court stands a marble statue of Victoria, and the area in front of the building is occupied by Chantrey's equestrian statue of Wellington. The exchanges for special purposes are—the Stock Exchange in Capel Court, the Coal Exchange in Lower Thames Street, and the Corn Exchange in Mark Lane—the two latter are sumptuous and extensive structures, and highly ornamental. The Mansion House, the residence of the lord-mayor, stands on the east end of the Poultry, nearly opposite the Bank. The Guildhall, at the north end of King Street, Cheapside, is the civic palace where the principal business of the corporation of the city is conducted; and the magnificent banquets given here have rendered city feasts proverbial. The East India House, containing the offices of the company, is situate in Leadenhall Street. It is an extensive building, and contains, besides the necessary accommodation for business, an excellent library, rich in Asiatic literature, and an interesting museum of Indian objects.

59. The principal theaters are Covent Garden and Her Majesty's Theater in the Haymarket, for Italian operas, and Drury Lane Theater for English operas, melodramas, and equestrian feats. The Haymarket and the Princess', in Oxford Street, are now the chief theaters in the west end where the regular drama is performed. The other principal theaters are—Sadler's Wells, in Islington; the Lyceum, the Adelphi, St. James', the Victoria, the Surrey, and Astley's, the last being exclusively devoted to equestrian performances. The Colisseum, in Regent's Park, is chiefly used for panoramic views. Exeter Hall, in the Strand, will contain 3,000 persons—it is used for concerts, and religious and philanthropic meetings. The Zoological Gardens, in Regent's Park, are very extensive, and contain valuable collections of animals. The Surrey Zoological Gardens are of less dimensions. Vauxhall Gardens on the south, and Cremorne Gardens on the north side of the river are also favorite places of resort; and there are many others of similar character in various parts of the suburbs. The numerous tea-gardens in the vicinity are also extensively resorted to.

60. The British Museum, in Great Russell Street, a spacious and imposing structure, was founded in 1753. It contains an immense collection of books, manuscripts, sculptures, coins, minerals, and stuffed animals; Egyptian, Assyrian, Etruscan, Greek, and other antiquities, etc. The library of printed books contains upward of 500,000 volumes. The National Gallery contains some very fine pictures—one end of the building is used for annual exhibitions, schools, and lecture rooms of the Royal Academy. Marlborough House, in Pall-Mall, contains a collection of paintings by English masters. Dulwich Gallery contains a fine collection, chiefly of Dutch paintings. There are also many valuable collections in the houses of the nobility, some of which are occasionally thrown open to the public. The Museum of the Royal College of Surgeons, in Lincoln's Inn Fields, contains some curious skeletons and surgical preparations. The Soane Museum, on the north side of the same fields, possesses many valuable objects, consisting of books, prints, manuscripts, drawings, maps, models, plans, etc. There is also a museum in Whitehall Yard, connected with the United Service Club, and a museum of practical geology in Jermyn Street.

BRITISH ISLES

SCALE OF STATUTE MILES.

0 10 20 40 60 80 100

50 Geographical or 57.63 Statute Miles, to an inch

EXPLANATION.

Capital of Kingdom	✻ LONDON
County Towns	⊙ Lincoln
Important Places	⊙ Liverpool
Rail Roads	
Canals	
Battle Fields	⚔ 1140

SHETLAND ISLANDS.

Scale same as Main Map.

CHANNEL ISLANDS

Scale same as Main Map.

PROFILE OF THE PRINCIPAL HIGHLANDS OF WALES, ENGLAND & SCOTLAND, FROM BRISTOL CHANNEL NORTHWARDLY TO CAPE WRATH.

Entered according to Act Congress, in the Year 1850 by J. H. Colton & Co. in the Clerks Office of the District Court of the United States for the Southern District of New York.

61. London has long been the favorite residence of literary men, is the great center around which clusters the talent of the country, and in which are located the principal learned institutions. It is also the head-quarters of journalism and of the book-trade. There are published in the metropolis six morning and as many evening papers; and a host of other journals which appear weekly and at shorter or longer periods. The chief learned institutions are—the Royal Society, Somerset House, founded in 1663; the Society of Antiquaries, in the same building, founded in 1707; the Royal Academy of Arts, in Trafalgar Square, founded in 1768; the Royal Academy of Music, founded in 1822; the Royal College of Physicians, at the north-west corner of Trafalgar Square, founded by Linacre, physician to Henry VIII.; the Royal Geographical Society, founded in 1830, and which has a choice library and a large collection of valuable maps and charts; the Institution of Civil Engineers, founded in 1818; the Royal Institute of British Architects, founded in 1834; the Royal Institution of Great Britain, founded in 1799; the Geological Society, founded in 1807, etc. Most of these publish volumes of "Transactions."

62. At the head of educational establishments stands the University of London, established in 1837, solely for the purpose of conferring degrees, the candidates for which are supplied chiefly by University College and King's College. The senate consists of a chancellor, vice-chancellor, and thirty-five other members, who hold sittings in Somerset House. The faculties are those of arts, law, and medicine, and the examinations are held twice a year. In University College, opened in 1828, the course of education embraces the classics, science, history, law, and medicine, religion being wholly excluded. King's College is on a similar plan, except that religion is taught in it on the principles of the established church. The buildings are handsome, especially those of University College. There are likewise two Episcopal theological schools, an English Presbyterian, a Baptist, an Independent, a Unitarian, and a Jewish theological school; and several schools for medicine, botany, chemistry, geology, etc. Of the numerous endowed schools, the most noted are—St. Paul's, the Charter-house, the Merchant Tailors', Christ's Hospital, Westminster, etc.—all excellent establishments, and each the *alma mater* of many celebrated men—poets, orators, statesmen, divines, doctors, and heroes. All these supply a free education, and many of them clothing, board, and all other necessaries, and on the completion of education the students are placed in such positions as they may be competent to fulfill. Besides the above and numberless private schools, there is one or more schools in every parish, and the school societies supply instruction to many thousands of children. These societies have also normal schools.

63. London abounds in hospitals, charitable institutions, etc., for the relief of human suffering. Of the medical charities, the most deserving of notice are—St. Bartholomew's Hospital, in Smithfield, containing 580 beds, and relieving 70,000 annually; Guy's and St. Thomas' hospitals, in Southwark, with about the same accommodation; St. George's Hospital, near Hyde Park Corner; Westminster Hospital, and various other hospitals of smaller size supported chiefly by voluntary contributions, as Charing Cross Hospital, King's College Hospital, University College Hospital, etc. Bethlem (Bedlam) Hospital, in St. George's Fields, is appropriated to the insane poor, and can accommodate 400 patients; St. Luke's, also for the insane, accommodates 250 patients. The Foundling Hospital is now rather a hospital for illegitimates, than for such as its designation would imply. At Chelsea is a fine retreat for aged and disabled soldiers, and at Greenwich a splendid hospital for the aged seamen. The charitable institutions at present comprise no less than 530 distinct establishments or associations, which may be thus classified—92 medical charities; 12 societies for the preservation of life, health, and public morals; 17 for reclaiming the fallen, penitentiary, and reformatory asylums; 13 for the relief of street destitution and distress; 14 for the relief of specific distress; 25 Jewish miscellaneous charities; 19 for the benefit of the industrious; 12 benevolent pension societies; 15 clergy aid funds; 32 other professional and trade benevolent funds; 30 trade provident; 126 asylums for the reception of the aged; 9 for the benefit of the blind, deaf, and dumb; 13 asylums for the maintenance of orphans; 15 for the maintenance of other children (exclusive of parochial schools); 21 societies for the promotion of schools and their efficiency; 43 home mission societies (several combining extensive operations abroad); 14 foreign missions, etc.

64. Extra-mural interment is of very recent date, and is still only very partial—most of the cemetries being too distant and expensive for the poorer classes. Kensall Green Cemetery, in which several royal personages have been buried, was opened in 1832, and occupies about 48 acres of ground tastefully planted and laid out. There is another at Highgate, about 80 acres in extent; and others at Stoke-Newington, Brompton, Norwood, etc.

65. The kinds of articles manufactured in London are endless. It contains the largest breweries, distilleries, and sugar refineries in the Kingdom; was long the principal seat of silk weaving, and still employs about 14,000 workers in that branch; has extensive manufactures in metal, including machinery of all kinds, plate, jewelry, watches, and brass-work, occupying likewise about 14,000 workmen; and as many more are engaged in the production of books and prints. Millinery employs about 40,000, tailoring 28,000, and shoe and boot making not less than 30,000 hands. Besides these branches, 12,000 are employed in cabinet-making, and many thousands in coopering, coach-building, leather-working, hat-making, ship-building, rope-making, etc., all of which are branches conducted on a large scale; and there are numerous extensive chemical-works, soap-manufactories, and dye-works.

66. The port of London extends from London Bridge to a little below Blackwall. The docks, some of which are of great extent, are surrounded by wharves, sheds, store-houses, vaults, etc., of the most spacious dimensions. The largest is the West India Import Dock, 2,600 feet long, 500 broad, and capable of containing 240 vessels of 300 tons each. The shipping belonging to the port in 1850 numbered 2,735 sailing and 318 steam-vessels, aggregating 667,297 tons. In the same year its foreign exports were valued at £14,137,527. The coasting trade is enormous, and at least 3,000,000 tons of shipping employed in this trade enter the port annually, and besides these about 10,000 vessels employed in the coal trade in 1851 brought up 3,236,542 tons for consumption. For East and West India produce London is the chief port: and it is here that nearly one third of the national customs are collected.

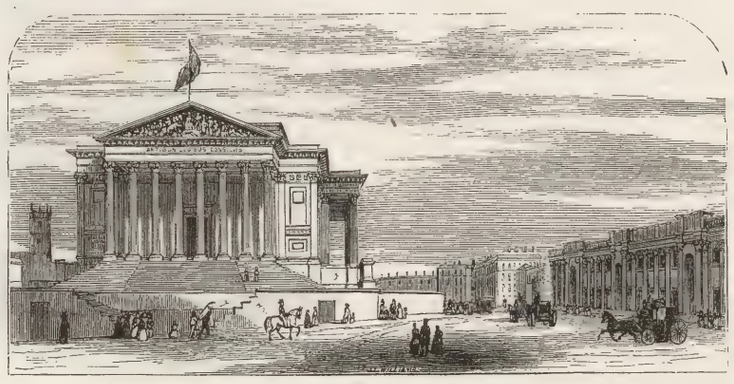
67. Seven railways, affording means of transit to all parts of the Kingdom, have stations in London—these are the Great Western, North-Western, Great Northern, Eastern Counties, Blackwall, South-Eastern, and South-Western. Some of these have a termini of a most imposing description and incomparable accommodation. There are also seven canals centering in the metropolis—the Grand Junction, Regent's, Bromley and Lea, Lea Union, Kensington, Grosvenor, and Surrey. A large fleet of steam-vessels is constantly employed in coast conveyance and in carrying passengers and goods to various European ports, and besides these the citizens are locally accommodated by steamboats navigating the river between Richmond and Woolwich; while omnibuses (about 3,000) and cabs (about 3,500) are in constant use; nor in this connection should the parcels-conveyance system be forgotten, as it has now become an institution of London at once unique and valuable, affording to the citizens great facilities at cheap rates.

68. Greenwich, on the right bank of the Thames, 3¾ miles below London Bridge, contains, besides the celebrated Naval Hospital, the National Observatory, founded by Charles II. in 1674. From this building the longitudes on all British charts are reckoned. The park contains about 200 acres, and is a great resort for Londoners on holidays.

69. The other principal towns of England and Wales are Manchester, Liverpool, Birmingham, Leeds, Bristol, Sheffield, Wolverhampton, Bradford, etc.

70. Manchester, on the Irwell, and including Salford, is the chief seat of the cotton manufacture. It is irregularly laid out, but the newer public ways and open spaces are commodious and handsome. The principal public buildings are the Exchange, town-halls, the Corn Exchange, Royal Infirmary, Lunatic Asylum, and asylums for the deaf and dumb and blind, Athenæum, Royal Institution, etc.; and conspicuous in the town are its magnificent mills and warehouses. In all it contains 126 churches; and has several colleges and endowed schools, and numerous private and elementary establishments, with many scientific and literary institutions. The town is well-paved, lighted with gas, and is abundantly supplied with good water. But Manchester owes its great prosperity to its abundance of coal, and more especially to the improvements in machinery connected with its peculiar manufacture. In 1853 it contained no less than 233 large mills engaged in the making of textile fabrics: these employed 42,264 persons, and used steam force equal to 8,135 horse-powers; 142 mills and 30,359 persons were employed in cotton spinning and weaving; 3 mills and 280 persons in woolen and worsted spinning and weaving; 50 mills and 7,520 persons in silk throwing and small wares; 3 mills and 1,120 persons in flax-spinning, and 35 works and 2,985 persons in printing calicoes, etc. Besides these distinguishing branches of industry, Manchester has extensive machine shops, chemical works, breweries, and numerous other industrial establishments. As a center of intercommunication, its canals and railroads give it access to all parts of the country, and along with most of these the electric telegraph is in full operation. At a distance of 32 miles, west by south, and near the mouth of the Mersey, stands—

71. Liverpool, the port of Manchester, and the second commercial town of the Kingdom. It is a well-built town, with spacious streets and several handsome squares. The public buildings are elegant: among the most conspicuous are the Exchange and Town-Hall, the



ST. GEORGE'S HALL AND LIME STREET RAILROAD STATION.

Custom House, St. George's Hall, St. John's Market, Collegiate Institution, Sailors' Home, etc.; and many of the churches, of which there are about 120, and charitable institutions, which are very numerous, are fine specimens of architecture. Schools are also numerous, and many of them of high repute. The progress of Liverpool as a commercial mart may be traced in the fact that whereas the customs receipts in 1750 were only £215,961, in 1800 they had risen to £1,058,578, and in 1850 to £3,366,284. In 1853 the declared value of British exports from Liverpool was £47,152,194. The imports from foreign countries consist chiefly of cotton, bread-stuffs, and tobacco. In 1851 the quantity of cotton imported was 1,748,946 bales, being about nine tenths the whole imported into the Kingdom. Numerous railroads and canals diverge from Liverpool to all parts of England, Scotland, and the richest part of Wales, by which the imported produce of foreign nations, as well as the vast products of the manufacturing districts and the mineral treasures of the surrounding counties, are conveyed to and from Liverpool as a grand commercial center, and lines of steamers trade with the principal home-ports; while the British North American provinces and several ports of the United States have regular communication by sea-going steamers. Steam ferries communicate with the towns and villages on the Cheshire shore. Many of these have become thriving places, and Birkenhead, since the formation of its docks, has progressed so rapidly that in a few years it must prove both a commercial rival and an auxiliary to Liverpool. Upward of £24,000,000 have been expended upon the improvements of the Mersey and the formation of twenty-four docks, whereby a stormy estuary and an unsafe anchorage have been converted into the most perfect harbor ever constructed by the skill of man. From the Cheshire shore at Seacombe the panoramic view is unrivaled. The port of Liverpool, with its six miles of river-wall and docks, crowded with forests of shipping of every size and from every clime, and the town with its spires, domes, and gigantic warehouses, present to the spectator more of the grandeur of commerce than any other port of the world.

72. Leeds, the chief town for the manufacture of cloth, is situated on the north side of the river Aire, across which it communicates with its suburbs, Hilbeck and Hunslet, by three stone and two iron bridges. The town is irregularly laid out, but has several good and spa-

cious thoroughfares. The principal edifices are the cloth-halls, the commercial buildings, the Central Market, Corn Exchange, Court House, Cavalry Barracks, etc. It has 137 places of worship. The position of Leeds in a coal district, and having ample means of communication with both seas and with numerous great seats of commerce, has been the sources of its eminence as a seat of manufactures. It now contains 148 establishments producing woolen, silk, and other textile fabrics, of which 102 manufacture woolen goods, 9 worsted goods, 37 flax goods, etc. Its principal woolen fabrics consist of the finest broadcloths, kerseys, swandowns, and beavers; in addition, carpets, blankets, camlets, and shalloons are woven. Besides the above enumerated branches, Leeds has also extensive factories for locomotives, machinery, and tools; also chemical works, glass-houses, potteries, tobacco mills, and soap works. It is connected with the North Sea by the Aire and Calder navigation, and with the Irish Sea by the Leeds and Liverpool canal; and by railroad with all the principal towns of the Kingdom.

73. Bradford, another large woolen market, is almost entirely built of freestone, but the streets, except in the modern parts, are narrow and ill-constructed. The principal edifices are the Exchange, with a library and news-room, and opposite to it is Piece-Hall, for the exhibition and sale of stuff goods; the Court House, a mechanics' institute, an infirmary, etc., with numerous fine churches and chapels, schools, and other educational institutions. In the vicinity are two colleges for the education of ministers of the Independent and Wesleyan denominations respectively. The staple manufactures of Bradford are worsted stuffs and mixed worsted, alpaca and mohair, also cotton and silk fabrics. There are not less than 112 mills in the parish for spinning and weaving worsted, etc. Broad and narrow cloths, woolcards, and ivory and horn combs are made in great quantities, and in the town and vicinity are extensive dye-works. The cotton manufactures are of recent introduction, but are making rapid progress. The neighborhood abounds in coal, and about three miles southeast are the Lowmoor iron-works, and a mile east the Bowling iron-works, both of which are on a very extensive scale. Commercial operations have been greatly facilitated by the cutting of a branch from the Leeds and Liverpool Canal, near Shipley, into the very heart of the town, and railroads afford easy communication with all parts of the country.

74. York, on the Ouse, in the midst of a beautiful plain, is a very ancient city, and the second in the Kingdom in point of rank, though surpassed by many others in wealth and importance. It is chiefly distinguished for its magnificent minster or cathedral, one of the finest Gothic structures in the world. This building is referable to the thirteenth and fourteenth centuries; its length is 524½ feet and its breadth 221 feet, with a great tower 234 feet in height, and on the west a magnificent front flanked by two towers 196 feet in height. Internally its adornments are splendid, and its organ is an unequaled instrument. York has also an ancient castle (now used as a prison), and the old walls and gates of the city are still standing. York forms a sort of metropolis of the northern counties, and is also a county of itself. A few miles to the west of the city is Marston Moor, the scene of one of the principal engagements between the armies of Charles I. and the Parliament. Its chief manufactures consist of glass and ironware, carpets, linens, woolens, paper-hangings, etc. York was the residence of Hadrian, Severus, Constantius Chlorus, Constantine, and other Roman emperors.



YORK MINSTER—WEST FEONT.

75. Sheffield, at the confluence of the Don and Sheaf rivers, is second only to Birmingham as a seat of the metallic manufactures. It occupies the bottom and sides of several low hills, and its newer parts are well built, though from the smoke of its numerous furnaces it presents a dingy appearance. The principal buildings are the Town Hall, Corn Exchange, Cutlers' Hall, theater, etc., and about 40 churches and chapels. Public schools are numerous, and comprise a grammar school, a girls' charity school, and a school of medicine connected with a noble infirmary. The cutlery of all kinds made at Sheffield has long been famous as among the best in the world. Other important manufactures are heavy iron and steel goods, plated-wares, fine metallic instruments, printing types, forks, files, and steel. Coal is abundant, and some is raised in the vicinity. The Don is navigable, and the canal basin is available for vessels of 50 tons. Railroad connection is made with all the principal places in the Kingdom.

76. Hull, or Kingston-upon-Hull, 34 miles southeast of York, stands on the north side of the estuary of the Humber. It is one of the principal sea-ports of the Kingdom, and possesses a range of extensive docks and warehouses, with ship-building yards and every facility for extensive commercial undertakings. Hull is the principal seat of the Baltic trade, and has also commercial relations with other parts of Europe as well as with the West Indies and South America.

77. Newcastle, on the north bank of the Tyne, 12 miles above its mouth, has a very extensive trade, chiefly in the shipment of coal to London and other markets, besides which it has also a considerable foreign commerce. Its manufactures consist chiefly of glass and ironware and chemicals. Ship-building is also carried on. At the mouth of the Tyne, on its north bank, are North Shields and Tynemouth, and on the south bank South Shields, all busy seats of trade and industry. Southward are Sunderland and Bishop Wearmouth on the north bank of the Wear, and Monk Wearmouth on the south bank, the three forming one great town connected by a stupendous iron bridge. Thus in the tract of country at the mouths of the Tyne and Wear, and within a few miles of one another, are several important manufacturing and commercial towns, which form together a scene of active industry not surpassed in any part of the world.

78. Birmingham is the second of the great workshops of England. Its manufactures are almost all metallic. The town, on the river Rea, occupies the east declivity of three hills: its lower part consists of unprepossessing streets, old houses, and innumerable workshops; but in its upper portions are many broad streets and handsome residences. In its center is a handsome quarter, rivaling in appearance the best parts of London, and containing the Town-Hall, the Grammar School, Queen's College, the Theater, and other principal edifices. The uneven ground on which the town is built facilitates its drainage, and thus contributes to its salubrity. It is also well lighted with gas. Many of the churches are fine structures; and Birmingham has also many literary, scientific, and charitable establishments. Its manufactures comprise almost every description of iron and steel goods, brass and iron founding, saddlery, fire-arms, cutlery, gold, silver, plated, bronze, or-molu, and japanned wares; papier-maché goods, toys, jewelry, electro-plated goods, buttons, steel-pens, glass, tools, steam-engines, and machinery of all kinds. The immense coal and iron beds of the district by which Birmingham is surrounded may be viewed as the main source of its prosperity, which has also been greatly aided by canals communicating with the Thames, Mersey, Severn, Trent, and Humber, and more recently by railroads. This town is supposed to have been a place where arms were manufactured by the ancient Britons.

79. Coventry, 18 miles southeast of Birmingham, is the principal seat of the manufacture of ribbons, and watch-making is also extensively carried on here. The small town of Stratford-on-Avon, 20 miles south-by-east of Birmingham, is celebrated as the birth-place of Shakspeare. Within a short distance to the northwest of Birmingham are the populous towns of Dudley, Wolverhampton, Walsall, Bilston, Wednesbury, etc., all of them the seats of various branches of the hardware trade, and situated in the midst of coal and iron mines, and liberally supplied with means of communication by canal and railroad. Further to the westward and adjacent to the east bank of the Severn is the populous district of Coalbrook Dale, which is the seat of extensive ironworks. In the south part of Staffordshire, adjacent to the town of Stoke-upon-Trent (38 miles north-by-west of Birmingham), is the district called the "Potteries," which occupies an extent of about 10 square miles. Within this space are several populous towns and villages in which almost the sole employment is the manufacture of porcelain, earthenware, etc. The principal of these, exclusive of Stoke-upon-Trent, are Longton, Shelton, Burslem, Hamley, and Lane End.

80. The towns of Derby, Nottingham, and Leicester are the chief seats of the hosiery and lace manufactures. Derby is situated on the Derwent, a few miles above its junction with the Trent. It has largely increased of late years, having become the center of a large railroad system, by which it is connected with all the central and northern parts of England. Nottingham is situated on the north bank of the Trent, and Leicester on the east side of the Soar, one of the chief affluents of that stream. About 10 miles west of Leicester is the village of Market-Bosworth, near which was fought, in 1485, the battle which terminated the wars of the Roses; and 18 miles to the southeast is Naseby, the scene of the defeat of Charles I. by the parliamentary forces in 1645.

81. Norwich, one of the largest cities and a sort of capital of the eastern counties, stands on both sides of the river Wensum, a short distance above its junction with the Yare. It has been noted for the manufacture of woolen goods ever since the time of Henry I., by whom a colony of Flemings was settled in the neighborhood, and this branch of industry introduced. Shawls, crapes, and various fabrics of silk and wool are extensively made here, and the town is also the center of a great agricultural trade, having one of the most extensive corn markets in England. The Cathedral of Norwich is one of the finest in the Kingdom.

82. Bristol, in rank the third commercial town of England, is situate at the junction of the Avon and Frome, about eight miles from the Bristol Channel. The city is built on ground so steep as to render the formation of carriage-roads almost impracticable. Kingsdown, St. Michael's Hill, and Brandon Hill rise nearly 250 feet above the river. Within the city are no less than seven eminences, and on these and in the hollows between them the streets are built. Bristol is nearly 10 miles in circuit. Including Bedminster and Clifton it contains about 80 churches and chapels. The Cathedral possesses one of the finest Norman gateways in the Kingdom. Hospitals and charities are numerous; and the city possesses several literary and scientific associations. Among the former are St. Peter's Hospital, Bristol General Hospital, asylums for blind, deaf and dumb, etc. The principal city buildings are the Council House, Bridewell Prison, Jail, Custom House, Excise Office, Exchange, the Merchant-Venturer's Hall, the new Guildhall, etc. The Bristol docks were first opened in 1809, and the old channel of the Avon was converted into one floating harbor about three miles in length. Both the foreign and coastwise trade are large and flourishing. The existing manufactures of the city are glass, brassware, pens, sheet-lead, zinc, spelter, chain-cables, anchors, machinery, drugs, paints, dyes, floor-cloth, earthenware, refined sugar, starch, soap, spirits, tin, copper, and iron wares, bricks, beer, porter, pipes, tobacoo, and hats. Most of these are carried on within or in the immediate neighborhood of the city. The Avon is here crossed by several fine bridges; and the connection of the city with other parts of England by means of railroads is efficient. The scenery around Bristol, particularly the Hotwells, is very beautiful, and Clifton has long been the residence of the wealthy. On Clifton Down are the zoological gardens, to which a botanic garden is attached.

83. Chatham (Kent), Portsmouth (Hampshire), and Plymouth (Devon) are the three great naval arsenals, and have extensive dockyards and other establishments, with every convenience for the supply of stores to the navy. Woolwich is the great depôt for the artillery, and has a royal arsenal, which contains founderies and establishments for the manufacture of various engineering and military stores. The towns of Sandwich, Deal, Dover, Hythe, New Romney, Rye, Winchelsea, and Hastings are distinguished as cinque ports, and possess certain privileges granted to them at a very early period. They were originally five in number (whence the name), but three others were subsequently added. Of these, Dover, Deal, and Hastings are the only ones of any importance at the present day. Deal is situated on that part of the coast which faces the channel of the Downs, a great rendezvous for shipping. Dover, at the point of the coast nearest to France, has always been a great place of embarkation for the Continent; but it has of late been partially superseded in this respect by Folkestone (six miles west), between which port and Boulogne there is now frequent and rapid communication by steam. Dover is also celebrated for its ancient castle, an extensive pile of buildings on a height which overlooks the town. The greater part of these are now in

ruins, and are of various ages, some of Roman times. The direct distance between Dover and Calais is only 21 miles, and the white cliffs of the opposite coasts are distinctly visible from either side of the channel. Hastings is a fishing town of some importance.



DOVER CASTLE.

84. Southampton, 80 miles from London by railroad, has considerably increased in importance of late years. Extensive docks have been constructed, and this port is now the seat of a large foreign trade, especially of that carried on with Spain, Portugal, and other Mediterranean countries. It is also the chief station for the Mediterranean and West Indian steam-packets, and the American steamships sailing between New York, Havre, Bremen, Hamburg, Antwerp, etc., call here for mails and passengers.

85. Oxford and Cambridge are the seats of the two principal universities. The University of Oxford consists of 20 colleges and 5 halls, and that of Cambridge of 17 colleges and 4 halls. London is likewise the seat of a university of recent foundation, and which consists at present of two colleges—King's College and University College.

86. Bath, Cheltenham, and Brighton are principally pleasure cities, resorted to by visitors from the metropolis and other large towns, on account of the advantages of their mineral waters and (in the case of the latter) for the benefits of sea-bathing. Harrowgate, Matlock, Leamington, Clifton (near Bristol), and Tunbridge Wells are also much frequented as fashionable watering-places. The towns of Margate, Ramsgate, Deal, Dover, Folkestone, Hastings, Worthing, and many other places on the coasts of Kent and Sussex, are likewise the resort of great numbers for the enjoyment of bathing and other sea-side recreations during the summer season.

SCOTLAND.

87. Scotland, occupying the northern section of the island of Great Britain, is situated between latitudes 54° 38′ and 58° 40′ north, and longitudes 1° 46′ and 6° 9′ west; and is bounded on the north by the Atlantic Ocean, on the east by the North Sea, on the southeast by England, on the south by Solway Firth, and on the west by the North Channel and the Atlantic Ocean.

88. The greatest length, measured between Dunnet Head and the Mull of Galloway, is 287 miles. The breadth varies exceedingly; measured between Kinnaird's Head and the Mull of Kintyre, it is 217 miles; on the parallels of 56°, 57°, and 58°, respectively, 120, 125, and 43 miles; between Alloa on the Forth, and Dumbarton on the Clyde, 32 miles, and farther north, where a kind of peninsula is formed by the Dornoch Firth and Loch Broom, not more than 24 miles. These measurements are exclusive of the numerous islands which, singly or in groups, line its coasts, and form one of their peculiar features. Few of these are found on the east coast. On the north are the two large groups of Orkney and Shetland; and on the west a series of groups known as the Hebrides and Western Isles. In the southwest are the islands of Arran and Bute. Including these the area of the country is stated at 32,324 square miles.

89. Scotland in its general appearance contrasts strikingly with that of England, possessing few of the long, open valleys and wide, undulating plains for which the latter is distinguished. The coast-line, with the exception of a portion of the northeast, chiefly along Moray Firth, and another portion in the southwest, chiefly along the Solway Firth, presents an almost uninterrupted succession of deep indentations and bold rocky cliffs and headlands, and stretches out so much when its different windings are followed as to have an aggregate length of at least 2,500 miles. On such a coast, navigation is nowhere safe, and is in many parts beset with great dangers. Nevertheless there is a long extent of coast on which art has done much, and nature more, to provide both harbors and roadsteads.



MELROSE ABBEY.

90. The interior naturally divides itself into three distinct topographical regions—a southern, a middle, and a northern.

91. The southern region, commencing on the frontier of England, stretches across the island and then north to the Lammermoor and Pentland Hills. It is essentially a mountain region, presenting both in isolated masses and continuous ranges a great number of heights which are more than 2,000 feet above the sea-level. Most of these have flat or rounded summits, and slope gradually, without breaking into precipices, and thus originate a great number of beautiful pastoral valleys. At least three fourths of this region belong in geological structure to the Silurian system, and are composed of graywacke and coarse slate. Eruptive rocks are found chiefly among the Cheviot Hills, which are composed almost throughout of porphyry; and three large outbursts of granite are seen in the southwest. Rocks belonging to the lower part of the secondary formation occur mainly in the southeast—these are composed of old red sandstone, but occasionally rise higher in the series and become truly carboniferous. Coal is accordingly found and also limestone and coal, the latter remarkable for the thickness of its main seam. The principal coal-fields are found in Dumfries.

92. The middle region, commencing where the southern terminates, extends north to the foot of the Grampians. Though the least of the three regions, occupying not more than a sixth of the whole surface, it is by far the wealthiest, and contains the densest population. This superiority is owing partly to the fertility of the soil, and more to its mineral resources. It includes the lower parts of the basins of the Clyde, Forth, and Tay, with their finely undulating slopes and straths, which gradually rise from them, but has none of the usual monotony of flat countries; and several continuous ridges stretch across its surface, attaining heights which in most other countries would be considered mountainous. The geological structure is of various composition, many of the hills being composed of porphyry, and otherwise there porphyry and trap are found widely distributed. All the sedimentary rocks are of the secondary formation. The old red sandstone, situated at the bottom of the series, is most largely developed in the north part of the region. The remainder of the surface belongs decidedly to the carboniferous system; but the higher rocks of the series of this system, so remarkable in England, are here altogether wanting. Coal and ironstone form a number of large and separate fields, which extend from coast to coast, and are all included within a space bounded by nearly two parallel lines, the one drawn from the mouth of the Tay to the isle of Arran, and the other from the town of Dunbar to the town of Girvan, including an area of about 1,500 square miles, and of this probably the half is occupied by iron and coal of the best quality.

93. The northern region, including all north and west of the Grampians, is remarkable for the number and elevation of the mountain ranges by which it is traversed. Immediately north of the valley of Strathmore the Grampians rise in majesty, and present an apparently impenetrable barrier; but form not so much a chain as a system of mountains, in which the loftiest summits are so irregularly grouped that it seems almost impossible to fix on any particular range as their principal axis. They, indeed, in their various ramifications, cover the country as far north as the valley of Glenmore and its remarkable chain of lakes. Their culminating points are Ben Nevis, 4,370, and Ben Macdhue, 4,390 feet high, and many others of upward 4,000 feet. The Grampians have in general a very sterile and desolate aspect; the grass or heath which usually covers their lower acclivities often disappears in the ascent, and long before the loftiest summits are reached, vegetation is all but extinct; and though many of the mountains have a rounded form, others terminate in fantastic peaks, and have their sides cleft by ravines, presenting perpendicular precipices of many hundred feet. On the north and west shores of the lakes of Glenmore another series of mountain chains begins to rise, and is continued with little interruption to the north coast. These are much lower than the Grampians, and their loftiest summits generally rise from an elevated table-land. The highest culmination, Ben Wyvis, is not more than 3,720 feet above the sea. Toward the east the surface gradually lowers, and, approaching the coast, becomes apparently an undulating plain. The geological structure of the northern region is distinguished from the other two chiefly by the extent to which gneiss and the crystalline schists are developed within it. Chlorite and mica schists form the whole of the southern frontier. Gneiss is developed on a still larger scale, covering nearly the whole northeastern part of the region, and granite is the prevalent rock in the southeast, where it intermingles strongly with the gneiss. Trap is not often seen on the mainland, but the large islands of Skye and Mull are almost wholly occupied by it. The only member of the secondary formation covering considerable tracts is the old red sandstone, which covers about nine tenths of Caithness, and extends south, in a narrow belt along the coast, as far as Moray Firth. It is found also covering lesser spaces in other parts; and the whole group of the Orkneys is apparently composed of it. Above the old red sandstone a large gap occurs in the secondary formation, and the carboniferous system appears to be altogether wanting, except at Brora in Sutherland, where a small unimportant coal-field has been worked. In the same vicinity a belt of lias and oolite extends along the coast from Helmsdale to Golspie.

94. In proportion to the extent of the country, its rivers and lakes are both numerous and of great magnitude, but, in consequence of the configuration of the surface, are not very equably diffused over it, the west part containing almost all the lakes, and the east part all the more important rivers. The principal rivers are the Tweed, the Forth, the Tay, the South Esk, and the Dee, all on the east coast, and flowing into the North Sea. The Forth and Tay approach the sea through firths or estuaries, and beyond these are of little navigable importance. The Dovern, the Spey, and the Findhorn fall into Moray Firth. The north and west coasts are equally destitute of rivers of importance, and none deserving of notice except the Clyde, which, by means of the Clyde and Forth Canal, forms a waterway across the country. In the Solway Firth are the mouths of only three rivers—the Dee, the Nith, and the Annan. All these rivers are navigable for some distance from their mouths, and have become the seats of cities of high commercial importance. Above their navigable courses their streams are profusely supplied with salmon, and form valuable fisheries, which supply the markets of the chief towns of Great Britain with that staple luxury.

95. The lakes of this part of the United Kingdom, situate for the most part in Highland glens, are generally characterized by a length altogether disproportioned to their breadth, abound with fish, and present scenery distinguished for grandeur and varied beauty. The most remarkable are Loch Lomond, in Dumbarton, the largest and finest in Great Britain, with an area of 45 square miles, and Loch Awe, in Argyle, with an area of 30 square miles. Lochs Ness, Oich, and Lochy, in Inverness, form the remarkable chain of which advantage has been taken to form the Caledonian Canal, which, connecting the North Sea and the Atlantic, has a length of 61 miles, of which 37 miles are lochs. Other lakes in the Highlands are—lochs Shin, in Sutherland; Maree, in Ross; Arkegg, Moirer, and Laggan, in Inverness;

Ericht, in Inverness and Perth; and Tay, Earn, Rannoch, Katrine, Achray, Venachar, and Lubnaig, all in Perth. Among the Lowland Lakes, the most celebrated in all respects is Loch Leven, in Kinross, which, in the roundness of its form, contrasts strikingly with all the Highland lakes.

96. Scotland is divided into thirty-two counties:

Counties.	Area, sq. m.	Popula. (1851).	P. to sq.m.	Counties.	Area, sq. m.	Popula. (1851).	P. to sq.m.
Aberdeen	1,970	212,032	108	Kinross	77	8,924	115
Argyle	3,255	89,298	27	Kirkcudbright	954	43,121	45
Ayr	1,016	189,858	187	Lanark	987	530,169	537
Banff	686	54,171	79	Linlithgow	101	30,135	300
Berwick	483	36,297	75	Nairn	215	9,956	46
Bute	171	16,608	97	Orkney and Shetland	1,545	62,533	40
Caithness	712	38,709	54	Peebles	354	10,738	30
Clackmannan	46	22,951	494	Perth	2,835	138,660	49
Dumbarton	297	45,103	152	Renfrew	234	161,091	687
Dumfries	1,129	78,123	69	Ross and Cromarty	3,151	82,707	26
Edinburgh	397	259,435	653	Roxburgh	720	51,642	72
Elgin or Moray	531	38,959	73	Selkirk	266	9,809	37
Fife	503	153,546	305	Stirling	462	86,237	187
Forfar	889	191,284	215	Sutherland	1,886	25,793	14
Haddington	291	36,386	125	Wigton	511	43,389	85
Inverness	4,256	96,500	23				
Kincardine	394	34,598	88	Total	31,324	2,888,742	92

97. The population of Scotland at the end of the seventeenth century did not probably exceed a million. In 1755, when an attempt was first made to ascertain it, it appears to have been 1,265,380. From that time the country made a start in manufacturing and commercial prosperity, as well as improved modes of rural industry, and the population experienced a corresponding increase. The various censuses since 1801 give the following results:

Census.	Males.	Females.	Total.	Census.	Males.	Females.	Total.
1801	739,091	869,329	1,608,420	1831	1,114,456	1,249,930	2,364,386
1811	826,296	979,568	1,805,864	1841	1,241,862	1,378,322	2,620,184
1821	982,623	1,108,898	2,091,521	1851	1,375,479	1,513,263	2,888,742

The earliest inhabitants of Caledonia were Celtic; but at various periods colonies of Teutonic origin made descents upon and settled in the lowlands and central highlands. Such, probably, were the Picts, about the third century, and the Attacotti or Scoti, from Ireland, several centuries later. These latter gave their name to the whole country. The northwestern parts of Scotland and the Hebrides are still peopled by the Celtic race. That part of the country south of the Tay and Clyde, and the whole eastern coasts, including Caithness, are Saxon and Scandinavian. In the central parts the people are a mixture of the Saxon and Celtic. The proper language of Scotland, except in the highlands, where the Erse or Gaelic is still spoken, is a Teutonic dialect, and though now generally superseded by the modern English, it will ever live in the works of Ramsay, Burns, and Scott. In general character the Scotch are a brave, moral, and industrious people; and in no part of the world are life and property more secure.

98. Scotland at the present day is even in a greater ratio than England principally a manufacturing and commercial country. The general mountainous character of its surface necessarily sets limits to the extension of cultivation, but the manufacturing and commercial resources of its southern portion—in the abundance of coal and iron, and the number and excellence of its harbors—are almost unbounded.

99. Less than a third part of the surface of Scotland is cultivable, and of this nearly one half is in grass. Agriculture, however, is nowhere better understood or more skillfully practiced than in some portions of the lowlands. Throughout Scotland the staple crop consists of oats, but wheat of fine quality is grown in the south, and throughout the eastern counties large quantities of potatoes are grown. The dairy-farm districts are chiefly in the counties of Ayr, Renfrew, and Dumfries.

100. The ancient staple manufacture was that of linen, but in a great measure the importance of this branch has succumbed to the cotton manufacture. The linen manufacture, however, is still considerable along the eastern coasts, especially at Dundee and Dunfermline. The cotton manufacture, though of recent introduction, is very extensive and flourishing. Its chief seats are Glasgow and Paisley. The manufacture of woolen goods is chiefly carried on at Hawick, St. Ninian's, Stirling, Bannockburn, Kilmarnock, etc. The iron manufacture is confined to the southern division of the country, where coal and iron-ore are extensively mined. The center of this district is Glasgow, which, with Port Glasgow and Greenock, has become so famous for its application of iron to ship-building and other economic purposes; and the fitting of steam-vessels with their engines and machinery is more extensively pursued here than at any other place in Great Britain.

101. The fisheries of Scotland are of the highest importance, and give employment to large numbers. Salmon abounds in most of the large rivers, especially the Tay, Tweed, Dee, Don, Findhorn, and Spey; and the herring fishery is also pursued to a great extent, chiefly on the shores of Caithness and the Moray Firth, and in Loch Fine and other places on the west coast cod, ling, and haddock are likewise extensively taken, and there is a great oyster fishery in the Firth of Forth. Peterhead is also extensively engaged in the northern seas whale fisheries.

102. The foreign commerce of Scotland, in its staples and general elements, resembles that of England. The imports consist of raw materials required for manufacturing purposes, chiefly cotton—and various articles of colonial produce, as tea, coffee, sugar, etc. The exports are principally manufactured goods, cotton goods, ironware, machinery, coal, etc. Agricultural produce is extensively supplied to England, and also large numbers of cattle.

103. Glasgow is the great seat of commerce, and is inferior in this respect only to London and Liverpool. The commercial ports next in order of importance are Leith, Greenock, Port Glasgow, Aberdeen, and Dundee. Montrose, Grangemouth (at the entrance of the Forth and Clyde Canal), Perth, and Arbroath have also a considerable amount of foreign as well as coastwise trade.

104. Few countries are better supplied with means of internal communication. Of canals the two principal are the Forth and Clyde Canal, which connects the entrances of those two rivers, and the Caledonia Canal, through the narrow valley which divides the northern from the southern part of Scotland. There are some others, but the mountainous character of the greater part of the country prevents this means of communication from being so extensively adopted as in England.

105. Nearly all the principal cities are now (1856) connected by railroad, and altogether there is of this description of road a length of 1,221 miles. Two great trunk lines enter the country from England, one on either side of the island, and proceed respectively to Glasgow and Edinburgh. From these cities lines proceed northward by Stirling, Perth, Dundee, and Forfar, and extend as far as Aberdeen, between which city and London there is now an uninterrupted railroad communication of nearly 550 miles in length. Most of the railroads in Scotland are accompanied by the telegraphic wire.

106. Scotland contains 225 towns of various magnitude, either market-towns, county towns, or cities. The average population of these in 1851 was 6,654, or less than a half that of English towns. These towns are grouped round thirty-two county towns, and consequently each county town is surrounded on an average by six other towns. Of these towns 83 are royal and municipal burghs. The names of the principal places in each county, and the population of each, in 1851, are given in the following tabular exhibit.

107. The thirteen southern lowland counties:

BERWICK.....Dunse,‡ 3,407; Coldstream, 3,188; Ayton, 1,959; Eyemouth,* 1,488; *Greenlaw*, 1,378.
HADDINGTON.....*Haddington*,‡ 3,883; Dunbar,* 3,088; Prestonpans,* 2,123; Tranent,§‖ 2,096; North Berwick,* 1,643.
EDINBURGH.....EDINBURGH,*†‡ 160,302; Leith,* 30,919; Musselburgh,*† 7,092; Dunkeith,‡§ 6 521; Porto Bello,* 3,497; New Haven,* 2,103.
LINLITHGOW.....*Linlithgow*, 4,215; Bathgate,†§ 3,341; Borrowtown-ness,*§ 2,645; Queensferry, 1,195.
ROXBURGH.....Hawick,† 6,683; Kelso,‡ 4,783; *Jedburgh*,† 3,615; Melrose (*see* PICTURE, ante) 966.
SELKIRK.....Galashiels,† 5,918; *Selkirk* (Abbotsford 4 miles west),† 3,314.
PEEBLES.....*Peebles*,† 1,982.
DUMFRIES.....*Dumfries*,*† 13,166; Annan,*‖ 4,570; Sanquhar,†§ 2,381; Moffat (saline and sulphur springs), 2,304; Thornhill,† 1,658.
KIRKCUDBRIGHT....*Kirkcudbright*,* 2,778.
WIGTON.....Stranraer,*† 5,738; *Wigton*,*† 2,282; Port Patrick (nearest Scotch port to Ireland),*‖ 1,963.
AYR.....Kilmarnock,† 21,443; *Ayr*,*‡ 17,624; Irvine,*† 7,534; Girvan,*† 7,319; Saltcoats,* 4,338; Baith,†‡ 4,012; Maybole,† 3,862; Stewardton (noted for its "tartans"),† 3,164.
LANARK.....Glasgow,*†‡ 329,097; Airdrie,†§ 14,435; Hamilton,† 9,630; Coatbridge,§ 8,564; Rutherglen,† 6,947; *Lanark*, 5,304; Strathaven,† 4,274; Wishawton,§ 3,373.
RENFREW.....Paisley,† 47,592; Greenock,*† 36,689; Port Glasgow,* 6,986; Pollockshaws,†§ 6,086; Barrhead,† 6,069; Johnstone,† 5,872; *Renfrew*,* 2,977.

—Berwick, Haddington, Edinburgh, and Linlithgow are chiefly agricultural counties; Roxburgh, Selkirk, Peebles, Dumfries, Kirkcudbright, and Wigton chiefly pastoral; and Ayr, Lanark, and Renfrew principally manufacturing and trading counties.

108. The twelve northern lowland counties:

STIRLING.....*Stirling*,† 12,837; St. Ninian's,†§ 9,851; Falkirk,‡ 8,752; Lennoxtown,†§ 3,108, Bannockburn,† 2,627; Grangemouth,*§ 1,488.
PERTH.....*Perth*,† 23,835; Crieff,† 3,824; Kincardine,*†§ 2,697; Comrie,† 2,463; Abernethy, 2,026; Dunblane, 1,816; Doune,† 1,559.
CLACKMANNAN.....Alloa,*§ 6,676; Tillicoultry,† 3,217; Dollar,§ 1,575; *Clackmannan*,* 1,585.
KINROSS.....*Kinross*,† 2,590.
FIFE.....Dunfermline,†§ 13,836; Kirkcaldy,*†§ 10,475; Dysart,*†§ 8,739; *Cupar*,† 7,427; St. Andrew's,* 5,107; Falkland, 3,102.
FORFAR.....Dundee,† 78,931; Arbroath,*† 16,986; Montrose,*† 15,236; *Forfar*,† 9,312; Brechin,† 6,637; Kirrymuir,† 3,518.
KINCARDINE.....*Stonehaven*,*‖ 3,240; Inverbervie,†‖ 934; Gourdon.*
ABERDEEN.....*Aberdeen*,† 71,973; Peterhead,*‖ 7,298; Frazerburgh,*‖ 3,093; Inverury,* 2,264; Port Elphinstone.*
BANFF.....*Banff*,*‖ 6,000.
ELGIN.....*Elgin*,† 6,337; Forres,† 3,468; Lossiemouth,* 902; Findhorn.*
NAIRN.....*Nairn*,*‖ 3,401.
CAITHNESS.....*Wick*,*‖ 6,722; Thurso,*†‖ 2,908.

—chiefly agricultural and pastoral, with large manufactures in the great towns. Parts of Aberdeen, Banff, Elgin, Nairn, and Caithness belong to the northern highlands, and a part of Stirling and the greater part of Perth belong to the southern highlands.

109. The three southern highland counties:

BUTE.....*Rothesay*,*‖ 7,104; Kilbride (Island of Arran),‖ 2,533.
DUMBARTON.....Kirkintillock,† 6,342; *Dumbarton*,* 4,766; Helensburgh, 2,841.
ARGYLE.....Campbelltown,*†‖ 6,880; Tobermory,* 1,547; *Inverary*,*‖ 1,164.

—a part of Stirling and the greater part of Perth are also embraced in this group. All are pastoral counties; and on the coast the herring-fishery is pursued.

110. The five northern highland counties:

INVERNESS.....*Inverness*,† 12,793; Portree (Isle of Skye), 3,577; Clachnaharry.*
ROSS.....*Tain*,† 2,588; Stornoway (Isle of Lewis),*‖ 2,891; Dingwall,* 2,364.
CROMARTY.....*Cromarty*,*‖ 1,988. } In some respects a single county.
SUTHERLAND.....*Dornoch*,* 451. }
ORKNEY AND SHETLAND.....*Kirkwall*,*‖ 3,451; Stromness,*‖ 2,055. *Lerwick*,*‖ 2,904.

—all agricultural and pastoral. Fisheries extensive.

111. Edinburgh, the metropolis and seat of the supreme courts of the country, is situated on the south bank of the estuary of the Forth, about a mile and a half from the shore, and occupies a cluster of elevated ridges, from which the views are both extensive and beautiful. Latitude 55° 57′ 24″ north, and longitude 3° 11″ west. The city is composed of two principal parts, called respectively the old and new towns. The former occupies the central and highest ridge, and is remarkable for the loftiness of its houses, which, rising in huge, dark, irregular masses, add greatly to the picturesque appearance of the city. The streets are also very irregular in their arrangement. The new town, to the north, occupies a ridge of much broader crest and less abrupt ascent, and is separated from the old town by a deep hollow, crossed by two stone bridges. In this section the buildings, wholly of white freestone, are remarkably handsome, the streets spacious and regular, and many of the squares, crescents, and circuses magnificent. On the south side of the old town, and also separated from it by a hollow occupied by the ancient street called Cowgate, and crossed by two bridges, stands the remaining portion of the city. With the exception of a few unimportant streets, this also is a comparatively new town, and contains many good houses and one or two old-fashioned squares, but possesses no remarkable features and has no distinctive appellation. About a quarter of a mile farther south is a handsome suburb called Newington.

112. The principal public buildings in the old town are Holyrood House, the Castle, the Cathedral of St. Giles, the Assembly Hall, the Outer House, the Tron Church, the Royal Exchange, the Corn Exchange, the Bank of Scotland, etc.; on the south side of the town are the University, several large hospitals, and the Royal College of Surgeons. In the new town

are the buildings of the Royal Society, the Physicians' Hall, the Register Office, the Royal Theater, the General Post Office and Stamp Office, and the jail and bridewell. On Calton Hill stands the Royal Astronomical Observatory, and also monuments to Nelson, Dugald Stewart, and Playfair. The most remarkable monument of the city, however, is the Scott monument, on Prince's Street; and other noteworthy monuments are those to Burns, Hume, and Lord Melville; and the bronze statues of the Earl of Hopetoun, George IV., and William Pitt, the last two by Chantrey.



EDINBURGH CASTLE.

113. Few cities of equal extent are possessed of more numerous and more magnificent hospitals and charitable institutions, and many of the edifices used for these purposes are among the finest of the city. Edinburgh possesses also about 92 churches; and educational establishments, irrespective of the colleges, are numerous.

114. Manufactures are neither extensive nor important — ale brewing, for which it has been famous for upward of 200 years, is the principal, and shawl-making, coach-building, and type and iron founding and soap and candle making are carried on to a considerable extent; and also the making of various kinds of machinery, generally of the smaller class. Glass painting and staining are also prosecuted to some extent.

115. As a book mart, Edinburgh stands second only to London in importance; and the city contains a larger portion of the more liberally educated classes than any other British town. This fact, taken in connection with the advantages it presents, as respects education and society, renders it a most desirable residence. It has now also become the center point of several railways, and the Union Canal furnishes additional means of transit.

116. Leith, the port of Edinburgh, is situated northeast of that city on the river or water of Leith, where it enters the Firth of Forth. The town communicates with and almost adjoins Edinburgh by means of Leith Walk, and there is also a railway between the two places. The principal public buildings are the Custom House, Exchange, Court House, Bank, and the Trinity House. Leith has 20 churches and chapels, and many excellent schools. Considerable manufactures are carried on, and also ship-building. Its foreign trade is chiefly with the Baltic ports. The domestic trade is with London, Hull, Newcastle, and the Scotch ports. The harbor has been greatly improved by the extension of the pier and other works. There are two wet-docks, each 250 by 100 yards, and adjoining these are three dry-docks, each 136 feet long. On the west side of the town there is an artillery barracks and battery, while the entrance to the harbor is protected by a martello tower.

117. Glasgow, the principal commercial and manufacturing city of Scotland, stands on both sides of the Clyde, 42 miles west-by-south of Edinburgh. Latitude 55° 51′ 54″ south,



UNIVERSITY OF GLASGOW.

and longitude 4° 16′ west. The city proper stands wholly on the right bank of the river, having the suburbs of Calton and Bridgeton on the east and those of Anderston and Finnieston on the west, the whole forming one continuous town; besides these the villages Camlachie, Westmuir, and Parkhead on the east and Patrick on the west are almost connected. On the opposite bank is the suburb Gorbals, Hutchestown, Laurieston, Tradeston, Kingston, and Govan, the whole also so blended as to constitute one uninterrupted series of streets. These two sections of the town are connected by substantial bridges.

118. The greater part of Glasgow and its suburbs stand on level ground, lying along the banks of the river, but on the north and northwest, comprising at once the oldest and newest parts, it rises to considerable elevations. Its plan is regular, the streets generally lying east and west, and north and south. Many of the streets are spacious and handsome, and the new crescents, squares, and dwellings, particularly in the west end, present beautiful specimens of modern domestic architecture. Among the public buildings the principal are the Royal Exchange, the University, the Hunterian Museum, the Royal Infirmary, the County Buildings, the Tontine, the old Tolbooth, and old Tron Church. The City Hall, Corn Exchange, Traders' Hall, the hospitals, etc., are also fine edifices. Adorning the town are monuments to Nelson, King William III., Sir John Moore, James Watt, Sir Walter Scott, and the Duke of Wellington. The Green and the Botanic gardens are the chief promenades, and are profusely adorned with shrubbery and shade trees.

119. The manufactures of Glasgow are extensive and various. The great staples may be classed under the heads of cotton and iron, with their endless variety of name, form, and purpose, and besides these there are numerous others carried on, particularly those of a chemical nature. But a very inadequate idea of the extent of the manufacturing interest in the branches already mentioned will be formed unless it be recollected that the villages for many miles round are employed directly by Glasgow houses. The principal articles manufactured from iron are—land and marine engines, locomotives, car wheels and axles, wagons, trucks, rails, chairs, and power-looms and machinery of all kinds, anchors, chains, and ship mountings generally; and a vast quantity of iron is now consumed in the building of vessels. The chemical works, both in the city and vicinity, are very extensive; and there are also large glass works, potteries, distilleries, breweries, etc.

120. Besides being the seat of a great amount of trade arising from its own manufactures, Glasgow is a general mart for all the manufactures of Scotland, and for much of those of the north of Ireland. It has also an extensive foreign and coasting trade, for the accommodation of which there are numerous spacious warehouses and granaries in convenient localities, most of the former being in the vicinity of the quays. The harbor at Bromielaw, below Glasgow Bridge, is usually crowded with vessels of all nations. The quays which line each side of the river are 10,873 feet in length, furnished with long ranges of sheds and strong cranes, and are capable of accommodating ships of 1,000 tons. There being no wet-docks, vessels lie in the river, which has been so improved as to have an average depth of 16 to 19 feet. Thus Glasgow, once beyond the reach of shipping, has become the most important Scotch port.

121. Greenock, on the south shore of the estuary of the Clyde, and 20 miles below Glasgow, stands partly on a narrow level tract of land and partly on some fine commanding heights, which rise behind and to the west of the lower parts. The lower and older town is mean and crowded, and the streets narrow and crooked; in the more modern portions the town contains many elegant structures. The principal public buildings, exclusive of the churches —in all 24, and many are beautiful structures—are the Custom House, the Tontine and Exchange, the Watt Monument—occupied as a museum, library, etc.—the Town Hall, Infirmary, etc. The manufactures of Greenock include machinery, and other iron work, sail-cloth, paper, chemicals, etc. Ship-building is also extensively carried on. The foreign and coasting trades are also important—large quantities of sugar, molasses, timber, grain, etc., are imported, and pig-iron, dry goods, machinery, whisky, etc., are exported, and many ships annually clear out with emigrants for America and Australia. The harbors are spacious and possess every accommodation for shipping, including dry-docks, etc. The quays can be approached by steamers at any state of the tide, and vessels of the largest class can enter the harbors. Little more than a century ago Greenock was a mere village.

122. Port Glasgow, 15 miles below Glasgow, is a neat and substantial town, with large manufactures and building-yards, at which many large sailing vessels and steamers are constructed. The chief branches of manufactures carried on are ropes and sail-cloth, chain-cables, anchors, etc. The harbor, provided with commodious quays, spacious warehouses, and wet-docks in which vessels drawing 25 feet water are kept always afloat, affords great facilities for trade, which, though at one time greatly diminished by the formation of the docks at Greenock and the deepening of the Clyde enabling large vessels to ascend to Glasgow, is still considerable.

123. Dundee is finely situated on the Firth of Tay, about eight miles from the open sea. This city has long been celebrated for its manufactures, particularly those of the coarser descriptions of linen, duck, and canvas. The staple articles of import are flax and hemp from foreign countries, and coal and lime coastwise; the exports are linens and linen yarns. Another manufacture of importance is kid gloves, famed for their neatness and durability. Ship-building, tanning, etc., are also carried on to a considerable extent. The harbor accommodations and docks are of the best description, and include two wet-docks, with a tidal harbor connected with them; and there are other works embraced by the harbor plan, which, when executed, will greatly extend this species of accommodation. There are four railroads connecting with the town. Population 78,931.

124. Aberdeen, at the mouth of the Dee, is a fine, granite-built town, with spacious streets, and with several interesting edifices. Among the principal public buildings may be mentioned the Surgeons' Hall, Advocates' Hall, Marischal College, the Trades Hall, barracks, and military hospital, and the old cross in the center of Castle Street. The manufactures of Aberdeen date from a very early period. In the fifteenth century it exported plaids, stuffs, serges, and stockings. Stocking weaving was the staple manufacture for many years; in 1749 the manufacture of linen thread was introduced, and afterward flax-dressing mills were established, and subsequently the cotton manufacture. Besides these there are large comb manufactories, paper-mills, stone-dressing establishments, and locomotive works. Ship-building is also carried on. The harbor is spacious, and is rendered safe by a granite pier on the north side of the Dee, which extends into the German Ocean. Foreign commerce is chiefly with the North American colonies, the East and West Indies, the Mediterranean, and the Baltic. Old Aberdeen, on the south bank of the river, is included in the parliamentary borough, and is now merely a suburb of Aberdeen proper. Its most remarkable buildings are King's College, the remains

of the Cathedral, the Town House, and the old bridge. Old Aberdeen has neither trade nor manufactures, but is wholly dependent on its university.

125. Paisley, on the White Cart, about three miles above the confluence of the united White and Black Cart with the Clyde, stands on both sides the river, here crossed by three bridges. The manufactures of Paisley consist chiefly of linen and woolen goods, and at the present time the shawl manufacture stands at the head of all other staples. In addition to these the other most important staples are cotton-thread, embroidery, tartan cloth, carpets, etc. There are also several cotton factories, a large foundery with steam-engine and other machine shops attached, a silk throwing mill, several breweries and distilleries, bleach-fields and building yards, the latter chiefly for river steamers.

IRELAND.

126. Ireland is a large island situated between latitudes 51° 26′ and 55° 21′ north, and longitudes 5° 20′ and 10° 26′ west; and lying west of Great Britain, from which it is divided by St. George's Channel, the Irish Sea, and the North Channel. On the north, east, and south its shores are watered by the Atlantic Ocean. Of a rhomboidal shape, its greatest diagonal is 300 miles, and the least 210 miles. Its greatest meridional length is 230 miles, and its greatest and least breadth, on parallels, 180 and 110 miles.

127. The coast, forming a line of about 760 miles, is in general very bold and rugged. The most continuous section is the east, where are the only remarkable indentations—the loughs of Belfast and Strangford, and the bays of Dundrum, Dundalk, and Dublin. In all other directions the indentations are exceedingly numerous, and frequently cut so deep into the land as to give it a very broken and rugged appearance. Commencing at the north we trace in succession loughs Foyle and Swilly, the bays of Donegal, Killala, Clew, and Galway, the estuary of the Shannon, the bays of Dingle, Bantry, and Dunmanus, and the harbors of Cork, Dungannon, and Waterford. In point of extent, depth of water, and shelter, many of these furnish natural havens which can not be surpassed.

128. The rocky shores which line most of these bays are formed by the abrupt terminations of mountain ridges, which, instead of stretching in continuous chains across the interior, rise rather in vast isolated masses, at a short distance from the coast, and usually subside rapidly as they recede from it. Indeed, almost the only inland range worthy of the name is that of the Devil's Bit and the Sliebhbloom Mountains, which stretch across, in an irregular course of about 30 miles, from southwest to northeast, through the northeast part of Munster and the west of Leinster, and in the Keeper attain the height of 2,265 feet. Most of the other masses attain their greatest elevation toward the exterior of the island, and thus give the interior the form of a vast plain, girdled all round by lofty mountain barriers. The most important of these are the mountains of Donegal, culminating in Erigal, 2,462 feet above the sea-level; of Sligo, culminating in Truskmore, 2,113 feet; of Mayo, in Nephin, 2,639, and Muilrea, 2,733 feet; of Galway, in the Twelve Pins, 2,396 feet; of Kerry, in Brandon, 3,120, and Carn Tual, the loftiest in all Ireland, 3,404 feet; of Waterford, in Mona Vallagh, 2,598 feet; of Wicklow, in Lungaquilla, 3,039 feet; of Dublin, in Kippare, 2,473 feet; of Down, in Sliebhdonard, 2,796 feet; and of Antrim, terminating in the Giant's Causeway. Though the barrier thus formed presents numerous openings, and the plain inclosed by it is by no means a monotonous flat, it is not difficult to understand how ill-adapted it is for giving a free course to the water which collects upon it, and accordingly contains extensive tracts of bog.

129. Few countries of the same extent are so liberally supplied with the means of water communication. The Shannon, the largest river, is navigable to its source in Lough Allen, forming a navigable channel of 214 miles, open to Limerick, from the sea 70 miles, for large vessels. The other rivers of most importance are the Bandon, Lee, and Blackwater, almost confined within the limits of Cork; the Suir and the Barrow, which, by the union of their streams, form the broad estuary of Waterford harbor; the Slaney, which, at its mouth, expands into the large lagoon of Wexford haven; the Liffey, which, from having the capital on its banks, possesses much more importance than its mere magnitude could give it; the Boyne, the largest river, discharging itself on the east coast; the Bann and the Foyle, which empty on the north coast, etc.



LAKE KILLARNEY.

130. Besides the loughs and lagoons in immediate connection with the sea, Ireland possesses a vast number of inland lakes, which in some parts lie so near each to the other as to form a continued series, easily available for purposes of navigation. Lough Neagh, 37 by 10 miles, is chiefly in Antrim, and is the largest lake not only of Ireland, but of the United Kingdom. Its beauty, however, bears no proportion to its magnitude—its shores are low and marshy, and the surrounding scenery possesses no attractions. The other more important lakes are Lough Erne, 30 miles long, and studded with inhabited islands, several of them so well wooded as to form a rich and interesting scenery; Lough Corrib and Lough Mask, which might be easily connected with each other and with the sea at Galway; loughs Allen, Ree, and Derg, the first the source, and the two latter expansions of the Shannon; and loughs Conn and Cullin, in the county of Mayo. Many others of much smaller dimensions are distributed over the island, and often compensate for their limited extent by the beauty and magnificence of their scenery. In this respect the lakes of Killarney are pre-eminent.

131. The geological peculiarities of Ireland are the vast masses of primary and metamorphic rocks which form its mountains, and the secondary formations spread over the interior. Basaltic rocks are almost entirely confined to the northeast, where they cover nearly the whole of Antrim, and often form colonnades, of which the Giant's Causeway is a celebrated specimen. Granite has its largest development in the mountains of Wicklow, and in other parts forms the nucleus of headlands, as at Fair Head, in Antrim, etc. Of the primitive stratified rocks, the most largely developed are chlorate and mica-schist; which, with primary limestone, hornblende, and other accompanying strata, cover the greater part of the north, but appear to be wanting in the interior and in the south and west. Next in the order of superposition is the Silurian system, the lower rocks of which form no inconsiderable portion of the whole island, being most common in Cavan, Monaghan, Kerry, Wexford, and Cork. The old red sandstone is most developed in Cork, and rises to the surface in numerous isolated spots in Waterford, Kilkenny, Tipperary, Clare, Galway, and Tyrone. The rocks next in series belong to the carboniferous system, at the bottom of which lies the mountain limestone, the most largely developed of all the formations. Its chief seat is in the center of the island. The succession of the strata is nearly the same as in England. One of the most valuable fields of coal is that of Kilkenny, where the coal is found in seven workable beds in the form of anthracite, and in the best seams so free from adulteration that it contains from 94 to 96 per cent. of pure carbon. The strata higher in the series than the coal are very partially developed. Tracts of marl and new red sandstone occur in Tyrone and Armagh, and on the east coast of Antrim strata still more recent appear, and beds of lias, green-sand, and chalk are exposed in the cliffs above the shore. The occasional appearance of the same strata inland, in the bottom of the valleys, leaves no doubt that they occupy a large extent of space, though the immense masses of basalt which overlie them, in some places to the depth of 500 feet, conceal them from view. Other minerals than coal are of comparatively little importance. The mountain limestone, which in England contains so many valuable mines of lead, appears to be here much less liberally supplied with that metal; iron, which unquestionably exists in abundance in the coal measures, has not yet justified the attempts to work and smelt it; and the mining of copper has been a signal failure. It should be remembered, however, that the minerals of Ireland have as yet been very imperfectly explored, and that important discoveries will eventually be made, is confirmed by the fact that the new red sandstone in which the existence of beds of salt had hitherto been rather suspected than known, has recently been found to contain them in such abundance as to promise supplies rivaling those for which England has so long been famous.

132. Mildness and humidity characterize the climate of Ireland. Its winters are seldom accompanied with prolonged frosts, while the average heat of its summer is below that of England. This comparative equality of temperature is evidently the result of its insular position. The humidity is in like manner the effect of the vast expanse of ocean which bounds it on the west, and the prevalence of west winds, which, charged with accumulated vapor, on first reaching the coast precipitate them in rain and fogs. Hence even in the midst of summer the air is seldom clear; and in autumn superfluity of moisture becomes a serious impediment to the operations of harvest. One great advantage, however, is that the verdure of the pastures is peculiarly rich and preserves its luxuriance to a late period of the year. Such a climate is also highly favorable to vegetation generally, and hence we find exotic plants which, usually in the same latitudes, can only be cultivated in sheltered gardens, to flourish here with vigor, and not unfrequently forest trees continue to retain their foliage after they have lost it in the warmer climate of England.

133. In early times large tracts of magnificent timber were spread over the surface, but these, under a gross mismanagement, have disappeared, and what ought to be the best is now the worst wooded country of Europe. Notwithstanding the great extent of her dismal moorland wastes, few countries have, in proportion to their area, raised more human food on an average of years than Ireland. This is owing chiefly to the fertility of the soil. After deducting mountain and moorland, there remains a vast extent of arable surface, covered with a deep friable loam of remarkable richness. In addition to vegetable mold, which forms one of their most important ingredients, the soils consist generally of the decomposed trap so widely spread over the north of Ulster, or of calcareous matters derived from the limestones which prevail in almost every other quarter. Thus, in point of staple, they can not be surpassed, and justify the eulogium of Arthur Young, when he says, they "will fat the largest bullock, and at the same time do equally well for sheep, for tillage, for turnips, for wheat, for beans; and, in a word, for every crop and circumstance of profitable husbandry."

134. Ireland is divided into four provinces and thirty-two counties, as follows:

PROVINCE OF LEINSTER.

Counties.	Area, sq. m.	Popula. (1851).	P. to sq. m.
Carlow	346	68,059	197
Dublin	3[illegible]4	4[illegible]5,092	1,144
Kildare	654	95,688	146
Kilkenny	797	158,746	199
King's	772	112,[illegible]80	145
Longford	421	82,350	196
Louth	315	107,627	342
Meath	906	140,750	155
Queen's	664	111,[illegible]28	212
Westmeath	708	111,409	157
Wexford	901	180,[illegible]59	200
Wicklow	781	98,978	127
Total Leinster	7,619	1,672,591	219

PROVINCE OF MUNSTER.

Clare	1,294	212,428	164
Cork	2,885	649,071	225
Kerry	1,853	288,239	129
Limerick	1,064	262,186	246
Tipperary	1,659	331,487	200
Waterford	721	164,051	227
Total Munster	9,476	1,857,412	196

PROVINCE OF ULSTER.

Counties.	Area, sq. m.	Popula. (1851).	P. to sq. m.
Antrim	1,191	360,201	3 2
Armagh	513	196,085	282
Cavan	746	174,071	233
Donegal	1,865	255,160	137
Down	957	320,817	335
Fermanagh	714	116,007	162
Londonderry	810	191,868	259
Monaghan	499	141,813	284
Tyrone	1,260	255,734	2 3
Total Ulster	8,555	2,011,756	235

PROVINCE OF CONNAUGHT.

Galway	2,417	321,831	131
Leitrim	613	111,841	182
Mayo	2,131	274,612	129
Roscommon	950	173,417	182
Sligo	722	128,510	178
Total Connaught	6,863	1,010,211	147
Grand Total	32,513	6,551,970	2 2

POPULATION AT DECENNIAL PERIODS.

Census.	Leinster.	Munster.	Ulster.	Connaught.	Total.
1811	—	—	—	—	5,937,856
1821	1,757,492	1,935,612	1,998,494	1,110,229	6,801,827
1831	1,909,718	2,227,052	2,286,122	1,343,914	7,767,401
1841	1,973,731	2,396,161	2,386,373	1,418,859	8,175,124
1851	1,672,591	1,857,412	2,011,756	1,010,211	6,551,970

The large decrease in population between 1841 and 1851 was partly owing to the disastrous famine which afflicted the country in 1845–47, and partly and mostly to emigration. But for

the occurrence of these the population in 1851 would have been 9,010,799; and hence the deficiency realized between the two periods is apparently 2,658,414. In the mean time 1,289,133 persons emigrated, and including their natural increase about a million and a half: the remainder (about 1,150,000) may be accounted for by retardation of natural increase and direct mortality at home. In 1851 the emigrants numbered 257,372, and in 1852, 224,830; and since the latter year emigration has signally decreased, either from exhaustion of material or from the improved condition of affairs inviting the inhabitants to remain in the country.

135. Except in the mountain districts, the population is pretty equally distributed. It is most dense in the neighborhood of Dublin and Cork, and next so in parts of the counties of Antrim, Down, Armagh, Monaghan, and Cavan. Along the banks of the Shannon and in parts of Leitrim and Roscommon there is a mean density.

136. The great majority of the people belong to the Celtic race, though in the parts most adjacent to England and in the large towns they have become partially mixed with the descendants of English colonists. The English language is now generally prevalent, and the native Celtic dialect in gradual process of extinction, though still spoken by the peasantry in the south and west parts of the island.

137. In the eastern part of Ulster the population is almost wholly of Scotch origin, and the manners and character of the lowlands of Scotland have been transplanted hither accordingly. Colonists from Scotland have at various times settled in different parts of Ireland, but the great colonization of Ulster by the Scotch took place in the reign of James I.

138. Ireland is chiefly a grazing country. Oxen are most extensively bred in the counties of Limerick, Tipperary, Roscommon, and Meath. Roscommon, Galway, Clare, Tipperary, and Limerick are the chief counties for breeding sheep, but these are not so extensively reared as oxen. The native sheep is small and partially covered with hair, but it has been crossed with English breeds, and most of the Irish sheep are at present long wooled and of large size. Goats are very generally reared in the mountain dlstricts, and are kept chiefly for their milk. The hog, however, is the animal most universally found. Dairy farms are numerous, and butter is made and exported in large quantities.

139. Next to the potato, which is everywhere the prevalent crop, oats are most generally cultivated. The humidity of the climate renders it less fitted for the growth of wheat and barley. Turnips are cultivated in some districts, but are not a general crop. Flax also is grown to some extent throughout the Province of Ulster for the supply of the staple manufacture.

140. The seas around Ireland swarm with fish, and the inlets on its shores are the resort of vast shoals of cod, herring, ling, hake, mackerel, etc. There are extensive oyster beds on the coast of Clare and also in Lough Swilly. But the fisheries are far from being flourishing, and their products but a tithe of what a well-directed industry would insure. Fresh-water fish likewise abound in the rivers, and there are salmon fisheries in the Bann, the Foyle. the Boyne, and other streams.

141. Ireland is not distinguished as a manufacturing country. The principal manufacture is that of linen, chiefly carried on in the Province of Ulster, at Dublin, Kilkenny, Wicklow, etc. The manufacture of broadcloths has been introduced into Dublin, and that of fine stuffs at Bandon. A coarse kind of frieze of domestic manufacture is generally worn by the country population.

142. The manufacture of cotton goods is chiefly confined to Belfast and vicinity, but is also prosecuted to some extent in some parts of the south. Tabinet or Irish poplin, a mixed fabric of silk and worsted is almost peculiarly a Dublin manufacture; and muslin and cambric are manufactured at Dundalk. Whisky is distilled everywhere; and at Dublin beer is largely manufactured, chiefly for export. Other manufactures pursued to a less extent are those of leather, glass, and vitriol, etc. Coal, iron, copper, and lead are the principal products of Irish mining industry; but the amounts of each produced are comparatively insignificant. Peat or turf is the common domestic fuel.

143. The foreign trade of Ireland is inconsiderable compared with that carried on across the Channel with Great Britain. The imports from abroad consist chiefly of tea, coffee, tobacco, sugar, wine, timber, tallow, flax, hemp, and wool; with of late years maize or Indian corn, chiefly from the United States. Coal is largely imported from England and Scotland, and also cotton, woolen, and hardware goods, with other British manufactures. The exports are chiefly to Great Britain, and consist principally of agricultural produce (including vast numbers of live cattle and pigs), with salt beef and pork, eggs, etc.; and also linen manufactures.

144. Dublin is the principal seat of the foreign import trade, and next in order are Belfast, Cork, and Waterford; but the export trade both of Belfast and Cork is more considerable than that of Dublin. Waterford is a great seat of the cross-channel trade to England, and exports immense quantities of livestock and farm produce. Both Drogheda and Dundalk have also considerable export trade of butter, etc. Liverpool, Bristol, and Glasgow are the chief British ports connected with the Irish trade.

145. Internal trade is necessarily large; and, except in the remote and mountain sections, the roads are well laid out and kept in good order. Two principal canals (the Grand and the Royal) connect Dublin with the Shannon, crossing the great interior plain, and have branches to many of the adjacent towns. These are principally used for the transportation of produce to the metropolis. There are also some other canals and artificial navigations, but this mode of communication is not, on the whole, so extensively used as might be expected. The Shannon is traversed by steamboats both for passengers and goods; and of late years the railroad and telegraph have been introduced. In 1855 there were in the country 1,012 miles of railroad, and the extension is yearly being farther and farther carried on. The great Atlantic telegraph, connecting Europe with America, is to extend from Valencia Bay to Newfoundland, about 1,600 miles. Communication with Great Britain is kept up by regular steam-packets.

146. Compared with the general density of its population, Ireland contains few large towns. The only places which have more than 50,000 inhabitants are Dublin, Belfast, Cork, and Limerick, and the only additional places of which the population exceeds 20,000 are Waterford, Galway, and Limerick. The greater number of towns have only from 3,000 to 4,000 or 5,000 inhabitants. The great bulk of the population is rural, and distributed in villages and small farm holdings throughout the country. The towns of the several counties are enumerated below, with the population of each in 1851.

147. The twelve counties of the Province of Leinster:

DUBLIN.....DUBLIN,*†‡‖ 258,361; Kingstown,* 10,453; Balbriggan, 2,310.
WICKLOW.....Arklow,* 3,300; *Wicklow*,* 3,141; Baltinglass,† 1,572.
WEXFORD..... *Wexford*,*‡ 12,819; Enniscorthy,‡ 7,735.
KILKENNY.....*Kilkenny*,†‡ 20,283; Callen, 2,368; Urlingford, 2,010.
CARLOW.....*Carlow*,‡ 9,121; Tullow, 2,966.
KILDARE.....*Athy*,‡ 4,698; *Naas*,‡ 2,971; Kildare, 2,229; Cellbridge, 1,674; Maynooth (seat of Royal College of St. Patrick), 1,619.
QUEEN'S .....Mount Mellick,† 3,657; Portarlington,† 2,728; *Maryborough*, 2,079; Mountrath, 2,079.
KING'S.....Birr,‡ 5,481; *Tullamore*,‡ 4,630; Edenderry, 1,850.
WESTMEATH.....*Mullingar*,‡ 11,499; Athlone,‡ 6,218; Kilbeggan, 1,442.
LONGFORD .....*Longford*,‡ 4,144; Granard, 1,805; Ballymahon, 1,025; Edgeworth, 827.
MEATH§.....*Trim*,‡ 6,226; Navan,‡ 3,979; Dangan (birth-place of Wellington .
LOUTH .....*Louth*,‡ 10,467; Dundalk,*† 9,841; Carlingford,* 9,437; Ardee, 2,752; Collon, 2,547.

and the town and territory of Drogheda,*† situated on the borders of Meath and Louth, also forms a county in itself, with an area of nine square miles, and 16,845 inhabitants.

148. The nine counties of the Province of Ulster:

ARMAGH .....Newry,* 13,473; *Armagh*,‡‖ 9,306; Lurgan,† 4,205; Portadown,† 3,091.
DOWN§ .....Newtonards,*† 10,075; *Downpatrick*,* 3,827; Donaghadee,* 2,818; Portaferry,* 2,074.
ANTRIM .....Belfast,*†‡ 100,300; *Carrickfergus*,* 8,520; Lisburn,† 6,932; Antrim,† 2,722; Ballymoney, 2,578.
LONDONDERRY.....*Londonderry*,*†§ 19,888; Coleraine,*† 5,920; Kilrea, 3,473; Newtown-Limavady, 3,206.
DONEGAL .....Ballyshannon,* 3,697; Donegal, 1,563; Raphoe, 1,492; *Lifford*, 570.
TYRONE .....Strabane,‡ 4,896; Dungannon,† 3,835; *Omagh*,‡ 3,016; Fintona, 1,504; Newtown-Stewart, 1,402.
FERMANAGH .....*Enniskillen*,† 5,949; Irvinestown,† 1,008.
MONAGHAN .....*Monaghan*,‡ 3,484; Clones,‡ 2,326; Castle Blaney, 2,077; Ballybay, 617.
CAVAN.....*Cavan*,‡ 4,520; Belturbet, 2,054; Cootehill, 2,105; Kilmore.§

149. The five counties of the Province of Connaught:

LEITRIM.....*Carrick-on-Shannon*, 1,996; Leitrim, 760.
ROSCOMMON .....Boyle,‡ 3,463; *Roscommon*,† 3,097; Elphin, 1,225; Castlereagh, 1,211.
SLIGO .....*Sligo*,*†‡ 11,209; Castle-Connor, 2,928; Ballymote, 965.
MAYO .....Ballina,†‡ 6,569; Ballaghadireen,‡ 4,151; Westport,* 4,121; *Castlebar*,†‡ 4,027.
GALWAY .....*Galway*,* 23,695; Tuam,†‡§ 7,819; Ballinasloe,† 6,550; Gort, 5,045; Loughrea, 3,651.

150. The six counties of the Province of Munster:

CLARE.....*Ennis*,‡ 7,800; Kilrush,*† 4,471; Killaloe,§ 2,330; Clare, 1,562.
LIMERICK .....*Limerick*,*†‡§ 53,448; Rathkeale, 2,988; Bruff, 2,106; Askeaton, 1,957.
TIPPERARY.....*Clonmel*,†‡ 15,204; Thurles,‡ 10,546; Cashel,‡§ 8,247; Tipperary,‡ 8,227; Nenagh,‡ 7,349; Carrick-on-Suir, 6,214; Cahir, 3,691; Roscrea, 3,389.
WATEFORD.....*Waterford*,*†‡ 25,297; Dungarvon,* 6,311; Lismore,‡ 2,319.
CORK.....*Cork*,*†‡§ 85,745; Queenstown* (Cove), 11,428; Bandon,‡ 7,943; Youghall,* 7,372; Kenturk,‡ 6,502; Skibbereen,* 6,440; Fermoy,‡ 5,825; Kinsale,* 5,506; Mallow, 5,406; Macroon, 3,719; Clonakelty, 3,297; Mitchellstown, 3,079; Passage,* 2,857; Bantry,* 2,395; Cloyne, 1,713.
KERRY.....*Tralee*,* 13,759; Killarney,‡ 5,898; Dingle, 3,255; Listowel, 2,115; Cahirciveen, 1,862.

151. Dublin, the metropolis, is situated at the head of Dublin Bay, 63 miles west of Holyhead. Latitude 53° 23′ north, and longitude 6° 20′ west. The city is divided into two nearly equal parts by the Liffey, which, intersecting it nearly west to east, is embanked with granite and lined on both sides with spacious quays and spanned by nine bridges. North and south it is flanked by the Royal and Grand canals, and is nearly surrounded by a highway called the Circular Road, from eight to nine miles in extent. The oldest part of the city lies to the south of the river, and is composed of narrow, filthy streets, lined by mean houses and inhabited by a miserable squalid population. The more modern parts are regularly and well built, and its principal streets are broad and present a fine appearance, being generally lined by handsome houses. The principal open spaces are—on the south, St. Stephen's Green (one of the largest public squares in Europe), Merrion Square, College Park, and Fitzwilliam Square; and—on the north of the river Rutland and Mountjoy squares, in the highest and airiest parts of the city.

152. Few cities possess more numerous or more elegant public buildings. In the center of the south side stands Dublin Castle on a slight elevation, a building more remarkable for size than for architectural features. East from the castle and facing College Green is the Bank of Ireland (formerly the Irish Parliament House), the finest building in the city. Also



BANK OF IRELAND AND TRINITY COLLEGE.

facing on the Green is Trinity College, an imposing modern structure of the Corinthian order; it was founded in 1592, and has attached to it two libraries of 130,000 and 20,000 volumes. The Four Courts stretch for 500 feet along the King's Quay, and present a fine appearance: this building is occupied by the courts of Chancery, Queen's Bench, Common Pleas, and Exchequer. The most important of the other public buildings, many of which are elegant, are—the Custom House, the King's Inns, the Post Office, the Royal Exchange, Rotunda, Corn Exchange, Commercial Buildings, Linen Hall, the Mansion House, the City Assembly House, Sessions House, etc. The principal ecclesiastical edifices are the cathedrals of St. Patrick and

* Sea-ports. † Manufacturing towns. ‡ Trading towns. § Bishoprics. ‖ Archbishoprics.

of the Holy Trinity (Christ's Church), and the metropolitan Roman Catholic cathedral. The most important literary and scientific institutions are—Trinity College, the Royal Dublin Society, the Royal Hibernian Academy of Painting, Sculpture, and Architecture, and the Royal Irish Academy for the promotion of Science, Literature, and Antiquities.

153. The surgical and medical institutions are the Royal College of Surgeons, King and Queen's College of Physicians, the School of Physic, the School of Surgery, and the Apothecaries' Hall. Charitable and benevolent institutions are numerous, many on a large scale, and all liberally supported. They include five hospitals, several infirmaries, a lying-in hospital—the finest in the Kingdom, two lunatic asylumns, several orphan societies and female penitentiaries; and upward of 200 charity schools. There are within the city or its immediate precincts seven barracks capable of containing 5,500 men. For public amusement and recreation there are three theaters, the music hall, the concerts of the various musical societies, and the Portobello and Rotunda gardens. In the vicinity, to the northwest, is the Phœnix Park, one of the most extensive (area 1,759 acres) and beautiful promenades of which any European city can boast. It contains the Vice-Regal Lodge and several buildings devoted to governmental, military, and constabulary purposes, the garden of the Zoological Society, etc.; and upward of 1,300 acres are open to the public.

154. Although formerly woolen cloths, linen, and silk goods were made in the city and vicinity to a large extent, Dublin has now no very considerable manufactures. One of the oldest, and still an important branch, is the tabinet or poplin manufacture. Tanning and currying of leather, cabinet and coach making, etc., are also carried on; and there are a number of founderies, breweries, distilleries, and manufactories of flint glass, sail-cloth, canvas, turpentine, vitriol, vinegar, soap, starch, glue, paper, parchment, vellum, hats, and snuff, etc. The harbor of Dublin, formerly a very indifferent one, has been lately so much improved that vessels of large burden may now unload at the quays—the depth of the channel at low water is 12 feet and at spring tides 23 or 24 feet. The docks connected with the custom-house on the north side cover a surface of 8 acres, have 16 feet depth, and 1,200 yards of quay with ample stores. The docks on the south side afford wharfage for upward of 100 sail. Considerable advantage has likewise been derived from the formation of the harbor of refuge at Kingstown, giving increased security to the shipping. Steam-packets ply regularly to Holyhead and Liverpool, London, Bristol, Cork, Glasgow, etc., some of them sailing from Kingstown Harbor; and by the Grand and Royal canals, connecting the Liffey with the Shannon, supplies are carried to the interior, and grain, potatoes, etc., are brought to the capital. Four railroads diverge from Dublin, connecting with Ulster, Galway and Connaught, Cork, Limerick, and the southwest, and Kingstown.

155. The environs of Dublin are remarkably beautiful; the bay is noble and picturesque, and esteemed one of the finest in the Kingdom. It is about seven miles broad at its entrance between Howth Head and Kingstown, and extends inland for about the same distance; and along the shores are the villages of Kingstown, Blackrock, Clontarf, Ratheny, etc., and terraces of handsome houses and scattered villas.

156. Belfast, the second city in Ireland in population, and the first in commercial and manufacturing importance, is situated on low ground on the left bank of the Lagan, near its embouchure in Belfast Bay. Latitude 54° 36′ 24″ north, and longitude 5° 56′ 12″ west. The town has few edifices of architectural merit, and, with exception of its numerous churches, is singularly destitute of public buildings. The principal are—the Queen's College, a magnificent structure of brick and stone; the White and Brown Linen halls, the Commercial Buildings, Custom House, Court House, and the House of Correction. Otherwise than the Queen's College, the educational establishments are the Royal Academical Institution, the Belfast Academy, the Lancasterian School, numerous national schools, and private seminaries. The charitable and benevolent institutions comprise the Poor House, with medical and surgical hospitals attached; the Lying-in Hospital, the Fever Hospital, the district Lunatic Asylum, the Deaf and Dumb and Blind Asylum, etc.; and among the literary and scientific institutions may be mentioned the Natural History Society, a royal botanical and horticultural society, a society for the promotion of knowledge, etc. Belfast is the great depôt of the linen trade of the north of Ireland, as well as the chief seat of the manufactures of both linen and cotton. Besides these there are distilleries, breweries, large flour and corn mills, founderies, tan-yards, extensive ship-yards, and rope and sail-cloth manufactories. The commerce of Belfast is extensive and rapidly increasing—the most important branch being that across the Irish Channel. At present 25 steamers ply regularly between Belfast and London, Liverpool, Fleetwood, Carlisle, and Whitehaven; Glasgow, Greenock, Stranraer, Ardrossan, and Dublin. Belfast Lough is 13½ miles in length and 8 miles in breadth at the entrance, gradually narrowing as it approaches the town.

157. Cork, at the head of the estuary of the Lee, lies in the center of a valley surrounded by hills, and is divided into three unequal parts, the principal part occupying the flat lands on the south side of the river. Latitude 51° 53′ 48″ north, and longitude 8° 27′ 45″ west. The general appearance of the city is cheerful and picturesque, although its suburbs and many of its lanes present scenes of wretched poverty. The principal streets, however, are spacious, well-paved and lighted, while most of the houses are large and well-built. The public buildings have little remarkable about them; the principal are the county and city courts and offices, the Custom House, the infirmaries, the Lunatic Asylum, Episcopal Palace, Queen's College, the Cathedral, and numerous churches and chapels. Near the city is a cemetery, after the plan of Père la Chaise, and on the west of it is a beautiful promenade called the Mardyke. Charitable and benevolent institutions are numerous, as also are schools and other literary institutions; and the city has two theaters, a circus, and three club-houses. On a height above the town are cavalry and infantry barracks for 2,000 men. The principal manufactures are tanning, distilling, brewing, iron founding, glass making, etc. The woolen and cotton manufactures once carried on are now nearly extinct. The trade of Cork is extensive. The foreign and continental trade is chiefly with Portugal, the Mediterranean, the Baltic, and Canada. The harbor is unsurpassed for capacity and safety; it is distinguished into upper and lower. The latter is situated eleven miles below the city, is three miles long and two miles broad, and completely landlocked. Its entrance is by a channel two miles long and one mile wide, defended on each side by forts Camden and Carlisle. The upper portion extends for about five miles below the city to Passage, and has been deepened so that vessels of 600 tons can unload at the quays. The tide flows nearly two miles above the city. Within the harbor are several islands, the principal of which are—Great Island, on which is situated the fortified town of Cove, now called Queenstown; Little Island, Foaty Island, and Spike Island, on the latter of which is a bomb-proof artillery barracks, and convict depôt; Haulbowline Island, on which is an ordnance depôt, and Rocky Island, on which are two powder-magazines excavated in the rock. Cork is connected by railroad with Dublin, Limerick, etc.

158. Limerick lies on an extensive plain at the interior extremity of the estuary of the Shannon, in latitude 52° 39′ 36″ north, and longitude 8° 39′ west. It is one of the finest towns in Ireland. The principal civic buildings are the court-houses and prisons, Custom House, Chamber of Commerce, Exchange, Linen Halls, several hospitals, the barracks, etc. The Cathedral is the principal ecclesiastical edifice. The manufactures of linen and gloves, once the staple of the city, have been supplanted by those of lace and fishing-hooks, both of which are carried on to a considerable extent. There are also distilleries, breweries, tanneries, founderies, flour-mills, and three ship-building slips. Limerick is the leading port on the west coast for the shipment of raw produce. The harbor extends about 1,600 yards in length and 150 in breadth, and is deep enough for vessels of 600 tons to moor at the quays. The city is connected by railroad with Dublin, Cork, etc.

159. Waterford, on the right bank of the Suir, and 97 miles south-southwest Dublin, with which it is connected by railroad, is also an important commercial town. It stretches along the river about a mile, and consists in the more modern parts of wide and airy streets and well-built houses; but in the older quarters the streets are irregular and narrow, and the houses dilapidated. The principal objects of note are two parish churches, a Roman Catholic cathedral, five other Roman Catholic churches, several dissenters' chapels, numerous endowed schools, a court-house, exchange, custom-house, several hospitals and charitable institutions, the Waterford Institution, with a library, museum, etc. The quay of Waterford, by far the finest in Ireland, extends 1,200 yards along the river, with a general width of 120 feet; and has sufficient depth of water to allow vessels of 800 tons to discharge their cargoes.

160. Galway is situated at the mouth of the Corrib, where it empties into Galway Bay, and is the west terminus of the Midland Great Western Railroad. Latitude 53° 15′ 12″ north, and longitude 9° 3′ 30″ west. It is a very old town, but of late years has been greatly improved, and now contains many spacious and handsome streets, adorned with civic and ecclesiastical edifices. The principal buildings are the Queen's College, several monasteries and nunneries, the county and town court-houses and prisons, the county infirmary, custom-house, and barracks. Some of the monasteries and nunneries are large and wealthy establishments. Schools are numerous, and there are several literary and scientific establishments. Galway is not a manufacturing place, but in the town and vicinity there are breweries, distilleries, and several flour and other mills, a foundery, tan-yards, etc. Its retail trade is considerable, and the commerce of the port improving. The harbor, which has an extensive line of quays, is connected by a canal with Lough Corrib; and its floating docks (area five acres) admit vessels of fourteen feet draft. The Bay of Galway is a large expanse of water, about 18 miles broad at its seaward extremity, diminishing to about 8 miles inland, and being about 20 miles long east to west. It is protected by the Arran Isles. Steam communication between New York and Galway has been proposed.

161. Both Drogheda (at the mouth of the Boyne) and Dundalk (at the head of Dundalk Bay), on the coast to the north of Dublin, have considerable trade in the export of corn, hides, butter, etc. Drogheda is one of the principal corn markets in Ireland. Kilkenny, on the Nore, is the principal seat of the manufacture of woolen goods, and has a large inland trade. Londonderry, on both sides of the Foyle near its mouth, is a place of commercial importance. It has some foreign trade, and also great intercourse with Scotland and Liverpool, chiefly by steamers. It is, next to Belfast, the most considerable town in Ulster.

162. Besides the places above noticed, the ports of Newry, Downpatrick, and Carrickfergus, on the northeast coast; Coleraine (near the mouth of the Bann), on the north; Ballyshannon (at the mouth of the Erne), Sligo, Westport, and Tralee, on the west; Kinsale (at the mouth of the Bandon), Youghall (at the mouth of the Blackwater), and Dungarvan, on the south coast; and—Wexford (at the mouth of the Slaney), on the southeast, are all places of importance, and carry on an export trade, chiefly of provisions.

163. Among the most considerable inland towns are Kilkenny, Carlow, Athlone, and Mullingar, in the province of Leinster; Armagh (the ecclesiastical metropolis), Lisburn, and Enniskillen, in Ulster; and Clonmel, Carrick-on-Suir, and Bandon, in Munster.

164. Almost every part of Ireland abounds in remains of ancient ecclesiastical edifices—monuments of its early civilization. Besides these there are numerous Round Towers, which are tall, circular buildings, of tapering form, rising to upward of 100 feet in height, and which are probably the remains of Pagan antiquity. The greater number of them are now in ruins, though a few still remain nearly perfect in external shape.

ISLE OF MAN AND THE CHANNEL ISLANDS.

165. These islands, the first lying in the sea between England and Ireland, and the latter off the coast of France, in the Gulf of Avranches, an arm of the English Channel, though having local legislatures, are nevertheless constituents of the Kingdom, and subject to the superior control of the imperial authorities.

166. The Isle of Man is situated between latitudes 54° 4′ and 54° 27′ north, and longitudes 4° 17′ and 4° 47′ west; and has a length of 34 miles, by a breadth of 6 to 13 miles, with a surface area of 282 miles.

167. This island is intersected by a ridge of mountains, the highest point of which, Snafield, attains 2,004 feet, and from these heights England, Scotland, and Ireland are distinctly visible. The Neb Sulby, and other small streams which flow from the mountains, enter the sea at Peel, Laxey, Douglas, and Ramsey. The coasts in many places are precipitous. Mica-slate and clay-slate form all the mountains, and clay-slate the largest portion of the island, and veins containing ores of lead, zinc, copper, and iron intersect the mountains. The galena found at the base of Snafield contains from 90 to 120 ounces of silver to the ton.

168. The inhabitants are chiefly Celts, and the Manx language, a dialect of the Celtic, is that commonly spoken. Agriculture and grazing are the chief occupations; but there are some small manufactures, and mining is also a valuable branch of industry, as is also the herring fisheries of the coasts. The trade of the island is principally with Liverpool, Dublin, Whitehaven, and Scotland.

169. The government, political institutions, and laws of Man are in many respects peculiar. The legislative and judicial authority is principally invested in the House of Keys, formerly a delegated but now a self-elected body of 24 members. Two deemsters, officers of great antiquity, having equal jurisdiction, are judges in civil and criminal cases. The governor is named by the crown, and has a council of six members. The Keys, deemsters, and governor and council constitute the Tynwald Court or Parliament. The judicial courts are the chancery and exchequer, held at Castletown by the governor and deemsters, and common law courts held in the different "sheadings" into which the island is divided. In towns there are high bailiffs, who act as magistrates. The revenue is derived from import duties, harbor dues, and inland taxes.

170. The means of education are provided in parochial schools, in which the course is simply elementary; and there are besides several endowed schools and a college. The prevailing religious sects are the Methodist and Church of England.

171. Castletown, the capital, is a neat town on the south coast. Castle Rushen was built, according to tradition, in 960, by Guttred, a Danish prince. Other principal buildings are a college founded in 1668, the government offices, etc. Population 2,479. Douglas, the largest town, lies on the southeast coast. It is the only port at which goods imported by license are landed, and is on this account the chief establishment of the customs department. It contains also eight places of worship, two schools, etc. The harbor is dry at low water, but vessels drawing from 10 to 14 feet enter at tide. The town is much visited for sea-bathing. Population 8,647. Peel is on the west coast, and is a very old town. The castle is built on a small rocky islet, connected with the harbor by a strong sea-wall. Peel has considerable trade, and in 1851 had 2,342 inhabitants. Ramsey, on the northeast coast, has a safe anchorage, and in this town the courts of law for the north part of the island are held. Population 2,701. There are also several villages, but only one, Ballasalla, is of considerable size.

172. The early history of Man is obscure. It is the Mona of Cæsar. It was governed by Norwegian kings until 1264, when it was reduced by Alexander III. of Scotland. The Scots were subsequently driven out by the English, and in 1307 Edward II. granted the island first to the Earl of Cornwall and then to Henry Beaumont. The Scots under Bruce recovered it and possessed it until 1340. It was finally granted to the Earl of Derby and his heirs, who took the title of King of Man, and with little interruption it remained in possession of that noble house until 1764, in which year the sovereign rights were purchased by the British government. No part of the British Isles abounds so much in Danish and other ancient remains; and the various tumuli, barrows, weapons, coins, and Runic inscriptions afford clear evidence of the connection which the Northmen had with the island.

173. The Channel Islands are situated between latitudes 48° 56′ and 49° 30′ north, and longitudes 1° 49′ and 2° 47′ west—within a few miles from the coast of France; and consist of Guernsey and Jersey, with their dependencies. These islands form the only remains of the Franco-Norman provinces once subject to the British crown.

174. Guernsey, the most westerly of the group—distant from the French coast 28 miles and from that of England 68 miles—is of a triangular form, nine miles long by three or four miles in breadth. The coast is difficult from the number of rocks and the rapidity of the currents around it. The surface is generally low and level, but in the south somewhat elevated, with an abrupt coast. Springs and rivulets abound. The island is almost entirely of granitic formation, but some trap and mica and argillaceous schist occur in the western section. The climate is subject to frequent though not great variations, and the soil is generally fertile.

175. Guernsey is divided into 10 parishes, and in 1851 had 29,757 inhabitants, whose industry is chiefly devoted to agriculture and cattle-breeding. Orchards are extensive, and from the mildness of the climate, many trees, which in England require artificial heat and shelter, flourish in the open air. A great variety of fish are taken on the shores, and crabs, lobsters, crayfish, and oysters, are abundant. The principal manufactures are those of tobacco and snuff, soap, candles, Roman cement, bricks, rope, cordage, etc. Cider is also largely made, and spirits are distilled for exportation. The small proprietors often unite with their ordinary pursuits the trades of carpenter or mason or other handicraft; and if near the coast they frequently unite fishing with agriculture. Immense quantities of sienite and granite are exported to England.

176. Guernsey has a political constitution of its own. The legislative body is the States of Deliberation, composed of 39 members, partly official and partly elective. The royal or the principal judicial court consists of a bailiff and twelve jurats, the latter chosen by the people. The bailiff and procureur are appointed by the crown, and are both *ex-officio* members of the States, and of which the bailiff is also speaker. Judicial proceedings are conducted in the old Norman-French, which is also the language of the islanders; and Norman customs and ancient precedents form the basis of the civil jurisprudence. The chief executive power resides in a governor, the queen's representative. The public revenue is derived from general taxes, harbor dues, licenses, etc. Schools are established in all the parishes, and there is a college at St. Peter-port. The Methodists and Episcopalians are the predominant religious sects. In 1851 there were in the island 64 places of worship, and 28 public and 87 private schools besides 33 Sunday schools.

177. St. Peter-port, the capital, is situated on the east coast, and from sea has a very imposing appearance. Population 16,776. The principal buildings are the government house, the college, etc., and for recreation a fine promenade has been laid out. In the suburbs are numerous elegant villas. The harbor, formed by two piers, is small and insignificant, but strongly fortified. St. Sampson's is the only other harbor on the island. Around it a small town has grown up, with an esplanade, etc., and ship-yards, docks, and storehouses for the shipping traffic. The Guernsey granite is all shipped from this port.

178. The dependencies of Guernsey are Alderney, Serk, Herm, and Jethou, which in 1851 had respectively 3,333, 580, 46, and 3 inhabitants. Alderney lies about seven miles west of Cape La Hogue, and is separated from it by the Race of Alderney, a deep channel, dangerous in stormy weather from conflicting currents. From Guernsey it is distant 15 miles. The island is about 12 miles in circuit. Grass lands occupy one third of the surface, and on these are fed the famous Alderney cows. The town, which is simply known by that designation, is situated in a beautiful valley near the center of the island, with roads leading to Longy and Braye bays, in the latter of which is Crabby, the only available harbor, and a harbor of refuge. Six miles west lies a cluster of islands called the Caskets. Though a dependency of Guernsey, Alderney has a local government of its own. Serk or Sercq, seven miles east of Guernsey, is about a third the size of Alderney. The coast on all sides is indented by small bays, and is so girt with cliffs that there is no way of landing but by scrambling up the rock or by a tunnel cut through the wall in the little harbor of Creux, on the northeast. The eastern shore is lined with rocks running far out into the sea, and on the west, separated from it by a narrow strait, is the island of Brechou, about a mile and a half in circuit. The land is generally under tillage, but the farmers also derive a large share of their subsistence from fishing. Serk has also its local legislation. Herm is within three miles of Guernsey, and is less than half the size of Serk. It has one little harbor, near its granite quarries. Jethou lies half a mile southwest from Herm, and is less than half a mile long.

179. Jersey, the largest of the Channel Islands, has an area of 62 square miles, and is situated about 18 miles southeast of Guernsey. The coast is rugged and precipitous, and on all sides there are fine harbors, as Boulay, St. Catherine, Grenville, St. Helier, and St. Brelade. Granitic rocks, in some localities overlaid by schists, are the principal formations. The interior is fertile and intersected by deep and beautiful valleys, abundantly wooded and singularly rich and picturesque in scenery. The dairy is the object of greatest care in Jersey; grain and fruits are also extensively cultivated. The exports consist of cattle, butter, potatoes, cider, oysters, and granite. Articles required for consumption are supplied chiefly from England, but to a considerable degree from France also. The roads throughout the island are unusually excellent.

180. Jersey is divided into 12 parishes. The States of Jersey consist of the governor and bailiffs of the royal (chief judicial) court, both appointed by the crown; the 12 jurats of the royal court elected for life by the rate-payers; the rectors of the parishes (appointed to their livings by the governor), and the 12 constables elected every three years, one for each parish, by the inhabitants. The crown officers have seats, but can not vote; and the "viconte" or high sheriff and the two "denunciators" or under sheriffs occupy seats in the assembly as its officers. The church is under a dean, who holds a spiritual court from which appeal lies to the see of Winchester. In 1851 there were in the island 57 places of worship, 20 of which belonged to the Established Church and 24 to the Methodist. Education is provided for in 14 public, 85 private, 42 Sabbath, and two ancient chartered schools. Victoria College, founded in 1852 at St. Helier, had in 1853 one hundred and thirty students.

181. There are three towns in Jersey—St. Helier and St. Aubin, both on the bay of St. Helier, and Gorey, on the east coast. St. Helier, the capital, is situated at the south end of the bay, and contained in 1851 29,133 inhabitants, and has usually a garrison of 600 to 800 soldiers under a military governor. The fortifications are extensive, and have cost immense sums of money. Commercial accommodations are ample, and the trade of the place important. St. Aubin, at the western end of St. Helier Bay, has a small but convenient harbor. Gorey, on Grenville Bay, once the principal fortress of the island, depends at the present day chiefly on its oyster fishery. The principal villages are Beaumont, Conuree, Georgetown, La Croiserie, Le Bourg, and Millbrook.

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182. The British Islands, of which descriptions have already been given, constitute together the United Kingdom of Great Britain and Ireland, the form of government in which is a limited monarchy, the successor to the throne being hereditary.

183. The legislative power is shared between the sovereign and two Houses of Parliament, the House of Lords, consisting of peers whose titles are hereditary, and to whose members the crown can increase, and the House of Commons, consisting of delegates elected by certain classes of the population.

184. The House of Lords is composed of both spiritual and temporal peers. The spiritual peers are the two archbishops and the 25 bishops of the Established Church in England, and one archbishop and three bishops of the Church in Ireland. The temporal peers embrace all adult members of the peerage of England and Wales, with 16 representatives of the peerage of Scotland and 27 of the peerage of Ireland. The representative peers of Scotland are elected for each parliament; the Irish peers for life.

185. The House of Commons consists of 658 members, of which number 500 are returned as representatives of the various counties and boroughs in England and Wales, 53 from Scotland, and 105 from Ireland. The House of Commons regulates the supplies of money for the public expenditure of the kingdom, and bills affecting money can only originate in that house. But all laws and public measures of any kind require the united consent of the two Houses of Parliament and the sovereign.

186. The executive power is vested in the crown, and is exercised through responsible ministers and officers appointed by the sovereign.

187. For the administration of justice, England and Wales are divided into seven circuits, each of which is visited semi-annually by two of the judges of the superior law courts. These are the Home Circuit, the Norfolk Circuit, the Oxford Circuit, the Midland Circuit, the Western Circuit, the Northern Circuit, and the Chester and Wales Circuit. The county of Middlesex, which is the seat of the supreme law courts, is not included in any of the circuits. In each county the town in which the assizes (or periodical sittings of the courts) are held is regarded as the county-town. The judicial administration of Scotland is distinct from that of England and Wales. Ireland is divided into six circuits, which are periodically visited by the judges.

188. The established religion in England and Wales is Protestant, and the English Church is under the government of two archbishops and 26 bishops. The Archbishop of Canterbury is styled the Primate of *all* England, and the Archbishop of York, the Primate of England. With exception of the bishop of Sodor and Man, the archbishops and bishops have seats in the House of Lords as spiritual peers.

189. In Scotland the established form of worship is Presbyterian, and the ministers of the church are under the jurisdiction of a body called the General Assembly.

190. In Ireland the established church is a branch of the English Church (forming with it the United Church of England and Ireland), and is governed by two archbishops and 10 bishops. But the great majority of the people of Ireland are members of the Roman Catholic Church.

191. In all parts of the British Isles full toleration is allowed those who dissent from the established form of worship.

192. In regard to education, the condition of the great mass of the people of Great Britain and Ireland is less advanced than in many other countries. The proportion which the number of children actually at school bears to the entire population is smaller in England than in Prussia, Bavaria, or Holland, in Europe, and much smaller than in either Canada or the Northern and Middle States of the United States. But great improvements, both in the extent and quality of primary instruction, has taken place of late years, and extensive assistance is now afforded by the government to schools in connection with each of the two chief educational societies—the National Society, which represents the English Church, and has under its direction by far the larger number of schools, and—the British and Foreign School Society, which is chiefly supported by the dissenting classes.

193. Scotland occupies a higher position than England both in regard to elementary instruction and to superior branches of education. An extensive system of instruction, through the agency of parochial schools, partly under the direction of the clergy, is carried out throughout the whole country, and has resulted in a very general diffusion of moral and religious training among the great mass of the population.

194. In Ireland, elementary instruction is promoted by schools placed under the direction of a Board of National Education, and assisted with funds by the government. The three queen's colleges of Belfast, Cork, and Galway, recently established for the purpose of affording secular education (without reference to differences of religious belief) together constitute the Queen's University, the chancellor and senate of which possess the usual power of granting degrees.

195. These schools are designed chiefly for the education of the poor, but are open to all classes. Otherwise in all parts of the Kingdom private schools, endowed and foundation, charity, and free grammar schools are very numerous, and in no other country are they so generally well supplied with teachers, many of whom have attained not only a professional but also a high literary standing in society. These schools hold a position between the elementary and the collegiate institutions, and are principally resorted to by the middle and wealthier classes.

196. The colleges of the Kingdom rank among the most eminent in the world. In England there are colleges and professional schools in the larger towns, and in the universities of Oxford and Cambridge are recognized the leading scholastic centers of the Empire. London and Durham have also universities. In Scotland there are universities at Edinburgh, Glasgow, Aberdeen, and St. Andrews; and in Ireland, at Dublin, and as before stated the Queen's University, which has also its seat at Dublin, with colleges at Belfast, Cork, and Galway.

197. Great Britain is distinguished rather as a naval than a military power, but maintains nevertheless a numerous standing army, amounting, at the present time (1856), to 239,103 men, including the national troops (26,363), in the service and pay of the East India Company, and colonial troops numbering 5,306 men. Of the regular army, 21,651 men represented the cavalry, and 238,509 the infantry. The enrolled militia at the same time was composed of 126,950 men, of which number 114,465 were infantry, and 12,485 cavalry. The royal navy of the Empire is superior to that of any country of the globe, and in 1856 embraced 573 vessels, carrying 16,176 guns—namely, 271 sailing vessels, carrying 9,594 guns, and 302 steam vessels of 88,667 horse-power, and carrying 6,582 guns. Besides this vast force, there belonged to the navy 155 steam gun-boats of 8,600 horse-power, and 111 other vessels, steam and sail, employed in the revenue and port service.

198. This immense national navy is altogether independent of the commercial navy, to the greatness of which reference has already been made, and which at the end of 1850 consisted of 25,984 vessels, measuring 3,574,103 tons, and at the end of 1855 of 25,948 vessels measuring 4,349,604 tons. In 1850 the steam shipping (included in the above) amounted to 1,185 vessels, and 177,312 tons, and in 1855 to 1,674 vessels and 380,635 tons. The proportion of shipping belonging to the several parts of the Kingdom in 1856 was as follows: to England, 3,449,844 tons; to Scotland, 583,563 tons; to Ireland, 253,774 tons; and to the Isle of Man and Channel Islands, 62,426 tons. More than one half of the commercial steamers are built of iron, and screw propelled. The employment of steam in the propulsion of both war and merchant shipping has of late years vastly increased, and in this well-attested fact is signalized one of the most characteristic features in the industrial progress of the Empire.

199. The commerce and navigation of the Kingdom divides itself into three grand sections according to its direction, viz., foreign, colonial, and coasting. The shipping employed in these severally for the year ending Jan. 5th, 1856, was as follows:

	Foreign.		Colonial		Coasting.		Total.	
	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.	Vessels.	Tons.
Inward—domestic	22,787	5,270,792	5,182	1,641,910	146,531	14,839,028	174,500	21,751,730
" —foreign	18,193	3,680,447	565	293,287	287	50,159	19,045	4,023,893
" —total	40,980	8,951,289	5,747	1,935,197	146,818	14,889,187	193,545	25,775,623
Outward—domestic	23,095	5,648,940	5,211	1,775,883	151,257	14,877,559	179,563	22,302,382
" —foreign	19,502	3,889,291	561	291,481	331	52,311	20,394	4,233,083
" —total	42,597	9,588,231	5,772	2,067,364	151,588	14,929,870	199,957	26,535,465

—making a total of shipping in the foreign trade of 18,489,470 tons, in the colonial trade of 4,002,561 tons, and in the coasting trade of 29,819,057 tons, or a general total of 52,311,088 tons entering and clearing British ports in the year under consideration.

200. The value of foreign and colonial produce imported into the Kingdom for the year ending 5th January, 1856, was £143,850,505, and the value of exports £117,591,163—the value of British produce and manufactures exported having been £63,322,528 to foreign countries, and £33,852,198 to British foreign possessions, and the value of foreign products exported £20,406,437.

201. In the year 1855 there were built and registered in the ports of the United Kingdom 818 timber sailing vessels (211,883 tons), and 47 iron sailing vessels (30,299 tons), and 38 timber steam vessels (3,107 tons), and 195 iron steam vessels (77,911 tons): total, 1,098 vessels and 323,200 tons. The number of colonial built vessels registered in British ports was only 34, with a tonnage of 21,177, all from the North American colonies; of foreign built vessels the number so registered was 91, measuring 39,437 tons. In the same year there were 486 (95,817 tons) vessels belonging to the United Kingdom wrecked, and 114 (8,029 tons) broken up.

202. The United Kingdom in proportion to its extent is better supplied with artificial avenues of intercommunication than any other country. In this place it will only be necessary to enumerate their lengths in the several divisions of the islands. The whole Kingdom contains 157,819 miles of turnpike or common road, and 2,775 miles of canal, and at the end of 1856 there were 8,718 miles of railroad in operation. The proportion of these to the several divisions was as follows:

	Roads: *miles.*	Canals: *miles.*	Railroads: *miles.*	Total: *miles.*
England and Wales	119,531	2,400	6,441	128,372
Scotland	18,348	113	1,221	19,682
Ireland	20,000 ?	262	1,056	21,318
Total length	157,879	2,775	8,718	169,372

—and this exclusive of the various river improvements, which are equivalent to canals, of the by-roads, and of double and triple railroad tracks. The traffic and travel on all these commercial ways is enormous, and constantly increasing with the progress of the various industries pursued throughout the Kingdom.

203. The revenue of the Kingdom is derived chiefly from customs and excise duties, and in a smaller ratio from stamp duties, direct taxes, a tax on property and income, etc. The expenditures are disbursed first on the national debt, which consumes more than one half the ordinary revenue, and next on the army and navy, which even in ordinary times require more than one fourth part of the national income for their support. The following table exhibits the amounts of the net income and the expenditures for the years ending with 1850 and 1855:

Income or Revenue.	1850	1855	Expenditures.	1850	1855
Customs	£20,636,921	£20,987,752	Interest, etc., of debt	£23,991,942	£22,792,594
Excise	13,985,363	16,389,486	Terminable annuities	3,725,994	3,868,293
Stamps	6,867,548	6,805,605	Inter. on exchequer bonds, etc.	606,025	814,221
Taxes (land and assessed)	4,303,849	2,945,784	Civil list	396,000	396,570
Property tax	5,408,160	13,718,185	Annuities and pensions	464,688	340,992
Post-office	832,000	1,137,219	Army	6,549,108	14,545,059
Crown lands	160,000	280,516	Navy	6,942,397	19,014,708
Miscellaneous	757,907	1,100,057	Ordnance	2,382,030	9,632,290
			Vote of credit—Russian War	—	5,200,000
			Civil service, etc	3,911,231	6,741,126
Total	£52,951,748	£63,364,605	Total	£50,853,622	£84,505,788

The first year (1850) was a year of peace, and the income exceeded the expenditures by £2,098,126, and the latter year was one of war, and the expenditures exceeded the receipts by £21,141,183.

204. At the revolution of 1688 the national debt amounted to the insignificant sum of £665,263, and the interest and management to £39,855 annually: at the commencement of the great European war in 1793 it was £239,250,148, and in 1817, shortly after the close of that war, £840,850,491. In 1851 the amount was reduced to £765,126,582. The war with Russia intervened between this year and 1856, and the debt at the commencement of the latter year was stated at £775,312,695, on which the annual charge for interest and management was £27,555,821. This debt was composed as follows—of 2½ per cent. stock £3,007,775, of 3 per cent. stock £769,000,280, of 3½ per cent. stock £2,871,515, and of 5 per cent. stock £433,124. There is also an unfunded debt (exchequer bills and bonds) amounting to several million pounds additional, and depending for its liquidation on the current revenues.

205. The great bulk of the people of Great Britain are of Anglo-Saxon origin. The Anglo-Saxons, however, were not the original owners of the soil; they found the Celts in possession and drove them before them into the wildest and most inaccessible parts of the island. Ireland experienced a different fortune, and is still almost entirely peopled by Celts. The Celtic language, however, though the vernacular in several districts, is rapidly giving way to the Anglo-Saxon tongue, which promises to be, if it is not so already, the most widely spoken of European languages. The long list of distinguished men whose language it has been, of itself indicates that those who speak it are an intellectual race. Nor is this their greatest praise. As a people, they are unsurpassed in the sterner and sublimer virtues. This character is accompanied as usual with superiority of social position; and when men ask—where is the greatest amount of national prosperity to be found? the best informed of every country point with one accord to Great Britain. There vast accumulations of wealth have been made, and vast multitudes of families are living in the daily enjoyment of the ordinary comforts of life.

206. But all pictures have their darker shades, and Britain's prosperity is by no means without alloy. Gigantic evils rear their heads in many quarters, and threaten to advance in spite of all efforts made to stay them. The population is not merely great in proportion to surface, but is much more crowded together than in any other country. France, in addition to its metropolis, has only three towns with a population exceeding 100,000. The United Kingdom has no fewer than nine. All of these contain immense commercial and manufacturing establishments, in which millions seek means of subsistence, and live on, day by day, often from the scantiness of wages unable, and oftener still from improvidence or some worse habit, unwilling, to make any provision for the future. Trades fluctuate and revulsions come; and the sources from which the first necessaries of life spring are dried up. Famine and disease follow, and the whole fabric of society is shaken to its base. Such things are not of unfrequent occurrence. But apart from these, pauperism has struck its roots deep, and multitudes live solely on the pittance the law has provided. The same causes which foster pauperism foster crime; and of these two there has been a vast increase of late years.

207. Relief from the presence of a dense population and its evils has been sought in emigration, and with beneficial results; and thus while the Kingdom is drained of a superfluity, other countries are reaping the benefit by an accession of labor. This emigration is chiefly directed to the United States, British America, and Australia, and amounts to nearly half a million souls annually. But still destitution is great; and it is one of the most favorable symptoms of British society that the condition of its poor is more and more attracting attention.

208. And it is well that amid its devisings sanatory measures are not forgotten. The climate is eminently favorable to health; but hitherto good evidence of the fact was only to

be found in the rural districts. Many of the larger towns, with their stagnant atmosphere and damp and sunless habitations, were the chosen abodes of disease and pestilence. The improvements which have been effected, and continue to be vigorously followed up, already furnish one of the most interesting chapters in the science of vital statistics. In the last 50 years, indeed, the average mortality has decreased from one in 42 to one in 49 of the town population.

209. It is not, however, by physical means, important though they may be, but by moral means that permanent improvements in the social system are chiefly to be effected. The first of these is unquestionably education. For a long time it was supposed that education was as widely diffused in Britain as in any other nation; but the contrary has been proved. The fact is humiliating; but those circumstances which have hitherto prevented the establishment of a national system have now passed away, and both people and government are earnestly endeavoring to remedy the defect.

210. With all its faults, however, Britain still maintains the proudest position among nations, and is persistently advancing in that which most elevates man.

211. Great Britain for many ages consisted of two independent and almost incessantly hostile kingdoms, which became united in 1603 under one sovereign in the person of James, previously the sixth of the name in Scotland, and thereafter known as James I. With him the history of the British Empire properly begins. His reign has the merit of having been peaceful, but he was ungainly in person, vulgar in manners, and of a cunning, ungenerous, and selfish nature. His learning only furnished displays of his pedantry, and his highest princely quality was the very equivocal one of entertaining extravagant notions of his royal prerogative.

212. His son and successor, Charles I., was a man of very different stamp. In person he was every inch a king, and had he lived in less trying times, the many noble qualities of which he was undoubtedly possessed might have made his reign both prosperous and brilliant; unhappily, however, he inherited his father's notions of prerogative—notions which became the occasion of fearful calamities, at once terminating his reign and his life by a bloody tragedy.

213. An interregnum succeeded, in which the chief actor performed his part with unrivaled ability; but with a character so enigmatical that many are still puzzled where to give him a place—whether among saints or hypocrites. Cromwell had ruled by a military despotism; but the scepter, which even he was scarcely able to wield, dropped at once from the hands of his feeble but respectable son, and the restoration of Charles II. was hailed with general satisfaction.

214. The death of Charles II., whose reign was one of ignominy and licentiousness, made way for his brother James II., an intolerable bigot, who at once brought matters to a crisis, and was soon beyond the Kingdom, an ignominious exile. Then followed the glorious Revolution of 1688, which completed the Magna Charta by its Bill of Rights, and placed the constitution on its immovable basis.

215. William and Mary were succeeded by Anne, whose reign was remarkable chiefly for the Act of Union in 1707, and the band of distinguished writers who flourished in it. George I. and George II. followed, both of them adding to limited intellect the greater disadvantages of being foreigners by descent, language, and manners. The reign of each was marked by a rebellion, which aimed to bring back the House of Stuart.



CORONATION OF VICTORIA I

216. These were succeeded by George III., whose long reign, though not free from blemish and reverse of fortune, was on the whole one of the most illustrious in British annals. A visitation of Providence withdrew him from public life. Meanwhile his place was occupied by his son as Prince Regent, who afterward succeeded him under the title of George IV. The scepter passed into the hands of William IV., whose reign, not otherwise much distinguished, is famous for the Reform Act. This sovereign was succeeded in 1837 by Victoria I. Her reign has hitherto been illustrious both in war and peace.

COLONIES AND DEPENDENCIES.

217. The colonies and dependencies of the United Kingdom lie scattered over every quarter of the globe; and what was once flatteringly said of the Spanish monarchy is as emphatically true of the British Empire—"the sun never sets upon it." It is singular, however, that with its vast dominions, Britain possesses not one colony and has only one dependency on the continent of Europe—the impregnable fortress of Gibraltar. To this may be added, in the same quarter, the Maltese Islands, possessed in absolute right, and the Ionian Islands, held under the name of a protectorate; and off the estuary of the Elbe the rock of Heligoland.

218. Leaving Europe and proceeding south to Africa, on reaching the coast of Senegambia we find a series of British settlements extending in line to the equator. These are of little commercial value. Crossing the equator and still proceeding south, the first British possession reached is the island of Ascension, and after it at a long distance the famous island of St. Helena. The next British settlement is the important one of Cape Colony, possessing an intrinsic value from its admirable position in regard to both the mother country and her Indian possessions. Natal and British Caffraria are also included in this category. And to Africa also belong the groups of the Amirantes and Seychelles, forming a small archipelago on the northeast of Madagascar; and, though far to the east of the mainland, the valuable dependency of the Mauritius. To these must be added the islands of Mushakh in the Gulf of Aden, and Socotra, held by recent purchase. These last named have a more than adventitious importance, being on the overland route to and from the Indies.

219. The passage across the gulf brings us from Africa to Asia, and places us in the town of Aden, which, since it became a British dependency, has made such rapid progress as to justify the belief that it is the nucleus from which other important settlements are destined to radiate. From this point east the Asiatic coast is skirted by desert; but once across the Arabian Sea, and the scene alters. There an immense peninsular tract is found, the whole of which, with insignificant exception, belongs in property or in trust to Britain, and is unquestionably her most magnificent foreign possession—a possession in extent so vast, in resources so rich, and in peoples, tongues, and nations so multitudinous, that there is no extravagance in the language which isolates it from her other dependencies, and speaks of it apart as her Indian Empire.

220. To the southeast, and so closely connected with the continent by the islets Manaar and Rameseram that no proper navigation intervenes, is the large and beautiful spice and coffee island of Ceylon, in which British supremacy has long been established. Proceeding east across the Bay of Bengal we arrive at Aracan and Pegu, and, considerably to the south on the same coast, at the Tenasserim provinces, all once belonging to Burmah. A long distance to the west are the Andaman, and to the south some other groups, nominally the property, but not actually in the possession, of Great Britain. Leaving these we reach the peninsula of Malacca, and turning into the straits find several British trading settlements—first, Penang or Prince of Wales Island; then Malacca, and lastly, emerging from the straits and rounding the peninsula, the flourishing settlement of Singapore, placed at the entrance of the Chinese Sea, and forming the great depôt of its traffic. In the lower portion of this sea the only British settlement is the island of Labuan, with the accompanying rajahship of Sarawak. The number of British settlements in this quarter, however, bears no proportion to the magnitude of British interests connected with it. Not another is met with on this side of the coast of China, and even there the only possession which Britain calls her own is the small but important island of Hong Kong.

221. Passing out of the Chinese Sea by the south of the Philippine Islands, and proceeding into the vast archipelago to which, on account of its physical character, the name of Oceanica is aptly given, we reach Australia, the largest island of the world. This island Great Britain possesses undivided, and is apparently converting into a new empire. On the southeast is the thriving colony of Van Dieman's Land, and away again farther southeast, first the Auckland Islands and then Campbell Island. To the north of these islands is the recently formed and flourishing colony of New Zealand; and still farther north the penal settlement of Norfolk Island. Beyond, the bosom of the Pacific is dotted with innumerable islands, of which several belong nominally to Great Britain, while to others she possesses all the right which both priority of discovery and of possession by her subjects can give.

222. Rounding Cape Horn, the southern extremity of America, and proceeding north, we arrive at the Falkland Islands, which Britain early acquired, and values chiefly as a station in connection with the southern fisheries. Almost the whole eastern coast of South America must now be coasted northward before another British settlement is reached. The first is British Guayana. In common with the other parts of the extensive alluvial tract almost encircled by the Orinoco and the Amazon, it is chiefly remarkable for the rich luxuriance of its vegetation; and in this respect it may be considered as belonging to the series of settlements which lie principally in and around the Caribbean Sea, there forming the West India Islands, the management of which presents alike the darkest and brightest spots in British annals. Before leaving this quarter, mention should be made of Honduras, a settlement from which Britain has long continued to derive her finest ornamental timber.

223. Proceeding north, past the Bermudas, now a penal settlement as well as a great naval station, we reach the last grand division of British settlements—a division included under the general name of British America, and originally almost of boundless extent, as may be estimated from the fact that, though its southern portion already constitutes a vast union of independent States, it still stretches from the Atlantic to the Pacific, and from the 42d parallel to the Arctic Sea.

224. The extent and population in 1851 and 1856 of the principal countries above referred to are given in the following table:

Countries.		Area, sq. m.	Population. 1851.	Population. 1856.
Canada West	*N. Am.*	147,882	952,004	1,351,000
Canada East	"	209,990	890,261	1,220,000
New Brunswick	"	27,704	193,800	220,000
Nova Scotia, etc.	"	18,746	276,117	300,000
Pr. Edward Isl.	"	2,134	62,678	65,000
Newfoundland	"	35,913	101,600	120,000
Hud. Bay Ter.	"	2,436,000	80,463	100,000
Vancouver's Isl.	"	16,250	3,000	2,000
Bermuda Islands	"	19	11,092	12,000
Bahama Islands.	*W. Ind.*	5,094	27,519	32,000
Turk's Island	"	430	4,428	4,500
Jamaica	"	6,250	377,433	380,000
Cayman Islands	"	260	1,760	1,800
Trinidad	"	2,020	68,645	72,000
Barbadoes	"	166	135,939	145,000
Grenada	"	155	32,671	36,000
St. Vincent	"	132	30,128	33,000
Tobago	"	144	13,208	15,000
St. Lucia	"	296	24,516	27,500
Nevis	"	21	9,601	10,000
St. Christopher	"	68	23,177	25,000
Antigua	"	108	37,757	40,000
Montserrat	"	47	7,653	8,000
Virgin Islands	"	92	6,689	7,000
Dominica	"	274	22,061	24,000
Anguilla	"	34	3,052	3,200
Barbuda	"	72	1,707	1,800
Honduras	*C. Am.*	18,600	11,066	12,000
Guayana	*S. Am.*	96,000	127,695	135,000
Falkland Islands	"	6,297	2,558	2,600
Gibraltar	*Europe.*	6	15,823	16,000
Malta and Gozo	"	219	128,361	133,000
Ionian Islands	"	1,102	232,297	240,000
Heligoland	"	5	2,236	2,300
Aden	*Asia*	3	50,000	100,000
E. Indies—*pro. er*	"	977,786	131,306,129	133,000,000
" —*depe. d.*	"	561,178	46,019,031	48,000,000
Ceylon	"	24,664	1,627,849	1,800,000
Labuan	"	36	780	1,000
Hong Kong	"	32	32,983	40,000
Gambia	*Africa.*	19	5,761	6,000
Sierra Leone	"	307	44,472	50,000
Gold Coast	"	6,000	385,000	400,000
Ascension	"	36	412	500
St. Helena	"	44	5,490	6,000
Cape Colony	"	110,256	285,279	300,000
Natal	"	18,000	18,000	20,000
Caffraria	"	12,000	2,000	3,000
Fernando Po	"	1,200	800	1,000
Mauritius	"	708	192,523	203,700
Seychelles	"	78	6,682	7,000
Amirantes	"	47	2,000	2,000
New S. Wales.	*Oceanica*	480,000	187,234	280,000
South Australia	"	325,000	67,430	85,800
West Australia.	"	1,000,000	5,886	15,000
Victoria	"	96,000	77,345	303,500
North Australia	"	1,200,000	1,000	1,000
V. Dieman's L.	"	28,600	74,741	100,000
New Zealand	"	100,000	26,656	50,000
Norfolk Island	"	18	600	700
Auckland Isl'ds	"	156	200	200

RECAPITULATION.

Countries.	Area, sq. m.	Population. 1851.	Population. 1856.
North America	2,895,588	2,571,015	3,390,000
West Indies	15,663	827,944	865,800
Central America	18,600	11,066	12,000
South America	102,297	130,253	137,600
Total America	3,132,148	3,540,278	4,405,400
Europe	1,332	378,717	391,300
Asia	1,563,649	179,036,772	182,941,000
Africa	147,695	946,419	999,200
Oceanica	3,249,774	441,092	836,200
Total	4,962,450	180,803,000	185,167,700

—together making a grand total of 8,094,598 square miles, and of inhabitants—in 1851, 184,343,278, and in 1856, 189,573,100.

225. Otherwise than the above-named possessions, the British have recently acquired or taken possession of the island of Karak in the Persian Gulf, the island of Perim in the Red Sea, near the Somauli coast, and the Cocos or Keeling Islands, in the Indian Ocean.

[*Weight, Measures, and Moneys.*—By the Act of Parliament (5 Geo. IV., cap. 74—1824) establishing the "Imperial System," the standards of weights and measures were fixed as follows: the "standard yard," or "brass yard of 1760," bearing the proportion as with that of a pendulum beating *seconds* in the latitude of London (at 62° Fahr. and in a vacuum at the level of the sea) of 36 inches to 39.1393 inches; the old Troy pound of 1758 containing 5,760 grains (one cubic inch of distilled water at 62° Fahr., the barometer being at 30 inches, weighing 252.4580 such grains), and 7,000 of such grains are declared to be equivalent to the "avoirdupois pound;" and the "imperial gallon," containing 10 pounds avoirdupois or 277.2740 cubic inches of distilled water at 62° Fahr., the barometer being at 30 inches.

WEIGHTS.—The pound (lb.) avoirdupois of 16 ounces, 256 drams, or 7,000 grains = 453.54 grammes; 112 lbs. = 8 stones = 4 quarters = 1 cwt., and 20 cwts. = 1 ton. The pound (lb.) Troy, of 12 ounces, 240 pennyweights, or 5,760 grains, = 373.2020 grammes.

MEASURES.—The yard (lineal) of 3 feet or 36 inches = 914.3835 millimetres; 5½ yards = 1 pole or perch; 40 poles = 1 furlong; 8 furlongs or 1,760 yards = 1 mile, and 69.1311 miles = 60 geographical miles or 1 degree. The acre (surface measure) = 4,840 square yards or 40 poles. The ton (ship-measurement) = 8 barrels bulk or 40 cubic feet. The gallon (liquid measure) of 4 quarts or 8 pints (= 4.5430 litres) = 277.2740 cubic inches or 1.20032 American gallons; and the bushel (dry measure) of 4 pecks or 8 gallons (= 36.3480 litres) = 1.031516 American bushels; 8 bushels = 1 quarter, and 10 quarters = 1 last.

MONEYS.—The national coinage consists of the sovereign of 20 shillings and half-sovereign in gold; of the florin (10 = £1), one shilling of 12 pence, and pieces of 6, 4, 3, and 2 pence, and the penny in silver, and of the penny, half-penny, and farthing and half-farthing in copper. Gold is coined at the rate of 1,869 sovereigns to 40 lbs. Troy of metal 22-24 or 916⅔ fine; and silver at the rate of 66 shillings to the lb. Troy of metal, 11 oz. 2 dwts. or 925 fine; and copper at the rate of 24 pennies to the lb. avoirdupois of metal. Hence the sovereign compared with United States gold coin = $4.86656, and the shilling compared with United States silver coin = $0.21724. Accounts are stated in pounds (£) of 20 shillings, shillings (*s.*) of 12 pennies, and pence (*d.*) of 4 farthings. The silver and copper coins are rather representatives of money than money itself, and are intended only for domestic circulation.]

FRANCE, OR THE FRENCH EMPIRE.

1. FRANCE is situated between latitudes 42° 20′ and 51° 5′ north, and longitudes 4° 50′ west and 8° 25′ east; and is bounded—on the north by the British Channel and German Ocean; on the east by Belgium, Germany, Switzerland, and Piedmont; on the south by the Mediterranean Sea and the Kingdom of Spain, and on the west by the Atlantic Ocean, especially by that part of it called the Bay of Biscay.

2. Measured on the meridian of Dunkirk, the greatest length of the Empire is about 600 miles, and on the parallel of Paris the greatest breadth is about 582 miles; but the breadth from the mouth of the Gironde to the Savoy frontier, where it is narrowest, is not more than 330 miles. Within these limits, which have a perimeter of 2,300 miles (1,335 miles of coast and 965 miles of land boundary), the area is computed at 203,771 square miles, and including the island of Corsica, 207,149 square miles.

3. It is impossible not to be struck with the advantages which France derives from its position. It not only forms a continuous and compact whole, but, though united to the continent by a line of about 700 miles, is so much isolated from it by great natural boundaries that the only direction in which it can be considered open to hostile attack is on the northeast, where a line of strong fortresses has made a barrier almost as impenetrable as those which in other directions have been provided by nature. Again, on the north and west a long line of coast gives it immediate access to the great ocean thoroughfares, while on the south its harbors on the Mediterranean give it a commanding influence both in Africa and the East, and secure to it a large share in the traffic of that most important of all inland seas.

4. The Alps on the east and the Pyrenees on the southwest connect the mountains of France with the most magnificent ranges in Europe; but only a few lofty summits are situated within the French territory. Of these, Mt. Olan, on the borders of Savoy, is the culminating point. Its height is 13,831 feet. At least two other summits in the same locality exceed 13,000 feet. The chain of the Pyrenees culminates near its center, in Maladetta, which has its highest peak in Spain, but the adjoining peak, Nethou, which nearly equals it, having a height of 11,427 feet, is in France. Several other summits on the French side of the Pyrenees exceed 10,000 feet. Both of these ranges throw out numerous branches, but they all subside rapidly as they recede from their central axes, and fall far short of the heights already mentioned.

5. The range next in importance is the Cevennes, the southern commencement of which has been placed somewhat arbitrarily in a depression where a lateral branch of the Pyrenees seems to terminate, and the Canal du Midi, connecting the Atlantic with the Mediterranean, has its summit level. From this point, called the Col de Narouze, the Cevennes proceed first in a northeast direction as far as Mt. Pilat, and then north to the Canal du Centre. Their whole length is about 360 miles. The average height of the central ridge does not exceed 3,000 feet; the loftiest summits, however, are found not in it but in its west branches, where the culminating points occur in the Plomb de Cantal 6,093 feet, and in the Puy de Sancy 6,224 feet high.

6. Though the Cevennes are considered as terminated at the Canal du Centre they only change their name at this point, and are continued northeast under the name of Côte d'Or to an elevated plain, stretching longitudinally east and west, and known as the Plateau de Langres. At its east extremity the chain of the Vosges commences in a ramification called Monts Faucelles. The principal chain lies considerably east, commencing in the Ballon d'Alsace in the northeast of the department Haute Saône, and stretching almost due north along the west of the departments Haut-Rhin and Bas-Rhin into Germany. The whole length of this principal chain within France is less than 100 miles; but if to this be added the Faucelles, the Plateau de Langres, and the Côte d'Or, by which it is brought into connection with the Cevennes, the total length will be about 270 or 280 miles. The average height does not exceed 3,000 feet, and the most remarkable summits—the Ballon de Guebuiler, Haut de Honee, and the Ballon d'Alsace—are respectively 4,695, 4,391, and 4,124 feet.

7. A chain of heights stretching south connects the chain of the Vosges with that of the Jura, which has an average height of about 3,000 feet, but subsiding rapidly as it recedes from the Alps, has none of its culminating points in France. Another low chain, continued from the Plateau de Langres, proceeds north-northwest, and forms two other ranges or plateaux, known by the names of Argonne and Ardennes. Their average elevation, under 1,200 feet, scarcely entitles them to a place among mountain ranges.

8. The great watershed by which the whole of Europe is divided into two vast basins, the one of which sends its waters southward to the Mediterranean, and the other west and north to the Atlantic, German Ocean, and the Baltic, passes in a waving line across France, in a southwest and northeast direction, and divides it into two very unequal portions. In France this watershed commences at the western extremity of the Pyrenees and proceeds east in the line of its central axis till it reaches the southeast extremity of Ariège. Here it meets a branch thrown off at right angles from the principal chain and proceeds with it northward to the Col de Narouze, already referred to as the summit-level of the Canal du Midi. Its course is thence determined by the Cevennes with which it proceeds first almost tortuously northeast, and then almost due north crossing the Canal du Nord, and thereafter continuing with the Côte d'Or to the Plateau de Langres. Having crossed this plateau, the Monts Faucelles give it an easterly direction as far as the Ballon d'Alsace, where, as if retracing its steps, it proceeds south-southwest along the great wall of the Jura, and quits the French territory on reaching the slopes of the Jorat.

9. The portion of France to the south and east of this great watershed is not equal to a fourth of its whole surface, and is almost wholly drained by the Rhone and its tributaries. The only secondary basins deserving of notice are those of the Tech, Tet, Gly, and Aude, which have their sources in the Pyrenees, and the Herault, which descends from the Cevennes. The far larger part of France, situated north and west of the watershed, contains in addition to a number of secondary four principal river basins—the Rhine, belonging to the German Ocean; the Seine, belonging to the English Channel; and the Loire and Garonne, both belonging to the Bay of Biscay. The first of these basins, though the largest of all, is developed to a very limited extent with the French territory. All the others are wholly French. The more important secondary basins on this side are those of the Somme and the Orne, belonging to the English Channel, and the Vilaine, Sevre, Niortaise, Charente, and Adour, belonging to the Bay of Biscay.

10. The lengths of the principal rivers and the area of their basins are exhibited in the following table:

Rivers.	Lengths: miles	Basins: sq. m.
Adour	204	656
Allier	263	617
Aude	130	—
Charente	248	378
Cher	229	—
Creuse	178	—
Dordogne (as far as *Bec d'Amber*)	310	902
Doubs	263	—
Durance	235	517
Escaut (*Scheldt*)	223	—
" (*Fr. part*)	55	—
Garonne (as far as *Cardouan*)	465	—
Garonne (as far as *Bec d'Amber*)	884	2,161
Gironde	—	3,156
Herault	83	—
Isere	198	—
" (*Fr part*)	105	—
Loire	645	4,480
Lot	266	—
Meuse	434	—
" (*Fr. part*)	161	280
Moselle	328	—
" (*Fr part*)	167	648
Marne	291	501
Oise	158	—
Oise (*Fr part*)	148	—
Orne	86	—
Rhin	962	8,645
" (*Fr. part*)	136	319
Rhone (with *Lake*)	534	3,774
" (*Fr. part*)	322	3,095
" (as far as *Lyons*)	328	—
Saone	316	1,148
Seine	497	3,002
Somme	117	—
Tarn	220	—
Vienne	220	—
Vilaine	130	448
Yonne	155	405

—the basin of the Seine as far as Paris is 1,671 square miles in extent.

11. Lakes are so few in number and individually so limited in extent as to be undeserving of separate notice. The largest, Grand-Lieu, in the department of Loire Inferieure, covers an area of only 29 square miles, and is altogether devoid of interest. The next largest, St. Point, in the Jura, does not cover three square miles. Others of still less dimensions become more interesting from their localities in the lofty regions of the Pyrenees or in the deep hollows of ancient craters in Auvergne.

12. France possesses all the geological formations in a greater or less degree of development. The mountains, generally, have a nucleus of granite. In the Vosges, however, it is sparingly developed, its place being often occupied by porphyry, and in the Jura where limestone prevails; but on the other hand almost the whole of the extensive peninsula of Brittany is covered with it. The other crystalline rocks, consisting chiefly of trachytes and basalts, have received a magnificent development in Auvergne, where whole mountains are composed of them, and where the effects of remote volcanic agency are still presented to the eye in extinct craters and lava streams. The granite is overlain by primitive stratified rocks of gneiss and of micaceous and argillaceous slates, succeeded, particularly in the Pyrenees, by mountain limestone, which there assumes a form worthy of the name, and is found on Mt. Perdu full of its characteristic fossil shells at the height of 10,230 feet above sea-level. The secondary formation, commencing with this limestone, and continued in ascending series up to the chalk, always possesses peculiar interest because within it valuable mines of lead and iron and all the workable seams of coal are included. It is largely developed in many parts of France, and furnishes a considerable number of coal and mineral fields. The tertiary formation, including all the limestones, sands, and clays above the chalk, occurs continuously in two great divisions, and partially in a number of isolated spots, covering altogether a vast extent. The larger continuous division is in the southwest, where it commences at the foot of the Pyrenees, and occupies a very large portion of the basins of the Garonne and the Adour. The lesser but better known division takes the name of the Paris basin, and has been made familiar to the scientific world by the labors of Cuvier and other distinguished naturalists. It occupies a large space around Paris and stretches south into the valley of the Loire. A considerable stretch of the same formation is found in the basin of the Rhone, particularly along the east bank of both that river and its tributary the Saône. Of more recent alluvial formations the only one particularly deserving of notice is the delta of the Rhone.

13. The coal-fields of France are so numerous that coal-pits exist in no fewer than thirty-three departments; but most of these are of so limited an extent that the area occupied by workable seams does not exceed a hundredth part of the whole surface. Several of the smaller fields occur in the northwest and also in the south where, besides common coal, anthracite and lignite are also found; but the fields of importance are those of Valenciennes in the northeast, forming the western extremity of the great Belgian coal-field, and that of St. Etienne, to which the manufacturing town of Lyons and the surrounding districts are indebted for much of their prosperity.

14. The coal-fields contain seams of iron which are extensively worked and furnish ore to a great number of blast furnaces; but the chief supply to these works appears to be derived not from them but partly from alluvial beds, in which the ore occurs in the form of balls, especially in the departments of Ardennes, Moselle, Haute-Marne, Haute-Saône, Nievre, Cher, etc., and partly from seams occurring in profusion among the strata of the Jura limestone, particularly on the west slope of that chain, and partly from veins diffused among the crystalline and primitive rocks, chiefly of the Alps, Pyrenees, and Vosges.

15. Few countries are so rich in lead. It occurs in greater or less quantity in many places, and is generally argentiferous. The present workings are confined, however, to three particular spots—Poullaouen and Huelgoat in Finistère, Vialos in Lozère, and Pontgibaud in Puy de Dôme. Manganese is also widely diffused, but is chiefly worked in Saône-et-Loire. Gold exists both in the sands of rivers and *in situ*, in thin streaks embedded in quartz. Attempts have been made to work this metal, and also quicksilver, but without great success. Zinc, copper, arsenic, nickel, and cobalt exist, but not in such quantities as to be workable to profit. The principal saline substances are alum and common salt. The latter occurs in the form of rock-salt both in the northeast departments and in the Pyrenees. But the great sources from which salt is derived are the lagoons and salt marshes which line many parts of the coast.

16. The granites of Finistère; the marbles of the Pyrenees, Mayence, and the Ardennes; the lithographic stones of Chateaureux; the mill-stones of Ferte-sous-Jouarre and Bergerac; the lavas of Puy de Dôme; the calcareous rocks of the Jura formation, and the sandstones of the Paris basin—plaster or gypsum also abounding in the same basin; limestone, diffused over many districts, and the roofing slates of Ardennes and Angers—all are abundant and extensively quarried. To these may be added others equally useful in an economic point of view, and especial notice may be made of the valuable beds of common clay, fine potter's earth, and kaolin, which supply the materials of an industry in which France so unquestionably excels.

17. France has four climatic regions. Within the first and warmest the olive is successfully cultivated. It forms the southeast of the country, and is chiefly confined to the departments which border on the Mediterranean. The second region is characterized by the general cultivation of maize or Indian corn. Its north limit is determined by a line drawn diagonally in an east-northeast direction from the Gironde to the lower Rhine. The third region reaches north to the extreme limit of the profitable culture of the vine, and may be considered as determined by a line stretching between the mouth of the Loire and the town of Mesieres in Ardennes. The country beyond this line is included in the fourth region. All these regions, notwithstanding their diversities of temperature and other conditions, are generally healthy. In the northwest the prevalence of winds from that direction often produces a superfluity of moisture, which manifests itself in mists or in frequent and heavy showers of rain. At the opposite extremity, the southeast, a contrary effect is produced, and a sultry, stifling wind wrinkles up the skin, and not unfrequently spreads fever in its most malignant form. But it is only to a few exceptional districts that these remarks apply. After allowing for them, more than four fifths of the surface remain under an atmosphere remarkable, more especially in the central parts, for salubrity, serenity, and brightness.

18. In France forests, natural and artificial, extend over one seventh of the surface, and are the more valuable from usually occupying ground which could not in any other way have been turned to good account. Their principal localities are the Ardennes, Vosges, and Plateau de Langres in the northeast, the Jura in the east, and the Cevennes, particularly the mountains of Auvergne, in the center. The two loftiest of the French mountain ranges, the Alps and the Pyrenees, are comparatively poor in wood. Isolated forests exist in various other quarters, and in the Landes, along the Bay of Biscay, a forest of sea-pine, about 100 miles long by 7 miles wide, has been formed, and not only furnishes good timber and large quantities of resin and other products, but also serves the important purpose of protecting a large tract from clouds and whirlwinds of sand, which must soon have converted it into a desert. The other localities in which pine prevails are the Vosges and the Jura, and the loftier Alps. In other forests the prevailing growths are the oak and the elm, and where artificial plantations have been formed, the chestnut, equally valuable for its food and the timber it furnishes; the mulberry, on which the most noted branch of national industry is founded; and the olive, which was once so extensively cultivated as to define one of the climatic regions into which the country has been divided. Among the other trees and shrubs which form objects of culture in the olive region may be mentioned the orange, lemon, pistaches, and caper. To the north of it the more important orchard fruit is the plum, which in the midland districts produces fruit of the finest quality, and when dried forms an important commercial staple. Still farther north, when the vine begins to fail its place is supplied on an extensive scale by the apple and pear, particularly in Normandy, where their fermented juice furnishes the general beverage.

19. Besides the large portion of land occupied by forests, another portion, of nearly equal extent, is either absolutely waste, or so rugged, moorish, sandy, and marshy, as to be properly classed as waste. The remainder, subject to minor deductions, is the cultivable land. Of this, a quantity equal to one half the whole is under the plow, one eleventh in permanent meadow, and one twenty-fifth in vineyards. To secure the productiveness of the land thus occupied nothing is wanting in the climate. The soil presents all imaginable varieties—rich alluvium, vegetable loam, calcareous earth, tenacious clay, hungry gravel, and sand. Taken as a whole, however, it is of at least medium fertility, and in many districts possesses a fertility which can not easily be surpassed. In regard to the management of arable land the French can not claim much praise, and owing to many causes the system of agriculture pursued has not progressed proportionally with scientific knowledge. One great cause of this state of matters is the almost endless subdivision of property, and hence a financial disability in owners to prosecute improvements. Still the aggregate of produce raised is very great, and the millions who depend entirely on the land for subsistence tax its powers to the utmost.

20. As in all countries situated in the milder portion of the temperate zone, the ordinary cereals form the great bulk of the cultivated crops. In France these, in the order of their importance, are wheat, oats, rye, and barley. The crops next in importance to these are meslin, potatoes, hemp, rape, maize, buckwheat, flax, and beet. The most valuable crops of which the cultivation on a great scale is not general but confined to particular districts, are madder, tobacco, saffron, and hops.

21. In France the grass is on a much more limited scale than arable husbandry, the land in permanent meadow being in extent only one sixth of that under the plow. Hence the breeding of stock, notwithstanding the stimulus of societies established for its encouragement, is, if not imperfectly understood, very indifferently practiced. The races of oxen, instead of being confined to a few of the more perfect types, are almost as various as the different districts of the country, and include a few good breeds, particularly on the rich plains of Lower Normandy, with many more of the most inferior description. The rearing of sheep is more successful, and the fleece has in many districts been carefully and skillfully improved, and much wool, scarcely inferior to the merino, is raised. The general employment of cattle for agricultural purposes gives little encouragement to the rearing of draught horses; but the warlike propensities of the nation has always created an extensive demand for horses of a description adapted for cavalry. Pains have been taken to improve such breeds, and the rearing of them is successfully carried on. Asses and mules, generally of a superior description, are much used in the country, and also reared largely for export.

22. The vineyards of France, as before stated, cover only one twenty-fifth of the surface; but vine-growing is nevertheless one of the most important branches of French agriculture, and the comparative value of land under vine and of land under the ordinary cereals is enormously in favor of the former. In everything relating to this branch of culture and wine-making the French are unsurpassed. The various first-class wines under the name of Champagne, Burgundy, Bordeaux, etc., are in high repute and general demand. The vineyards



VINTAGE SCENE.

produce annually an average of 8,000,000 pipes of wine and 250,000 pipes of brandy; and it ought to be added that much of the land from which this superior produce is obtained consists of rocky steeps and terraces on which corn could not be grown.

23. Owing to the remarkable subdivision of property, to which reference has heretofore been made, the agricultural outnumbers the manufacturing population in the proportion of five to one, and hence the value of the products of manufactures can not be expected to be comparatively as great as of those of agriculture. In these circumstances the important position which France holds in regard to all the great branches of manufacturing industry, and the decided lead which it takes on at least more than one of them, is extremely creditable, and bears strong testimony both to the ingenuity and industry of its inhabitants. The most important tissue is silk, which, in a great variety of forms, has its principal locality at Lyons and the towns of the surrounding districts, particularly St. Etienne, and is also successfully manufactured, though to an inferior extent, at Paris, Nimes, Avignon, Annonay, and Tours. After this staple, though at a considerable distance, follow cotton stuffs, pure and mixed, at Rouen, St. Quentin, Troyes, Lille, etc.; woolens, including broadcloths, at Louvieres, Elbeuf, Sedan, Carcassone, Abbeville, etc.; lighter woolen stuffs, at Rheims, Amiens, and Beauvais; carpets at Paris, Aubusson, Felletin, and Abbeville; tapestry at Paris and Beauvais; linens, including fine muslin, gauze, and lace, at Valenciennes, Courtray, St. Quentin, Alençon, Caen, etc; porcelain at Sevres, Paris, Limoges, and Bayeux; stoneware at Nevers, Montereau, etc.; and common pottery at Serreguemines and Meillonas; beet-root sugar chiefly in the department Nord; leather, and the various articles made of it, including gloves; paper, plain and stained; hats, hosiery; steel, iron, brass, and zinc ware; plate and flint glass, etc. Besides these, a great number of articles in which taste, skill, and ingenuity are more especially required have their common seat in the capital. Among others may be mentioned all articles of vertu, jewelry, clocks and watches, surgical and mathematical instruments, musical instruments, works in ivory, types, books, and engravings.

24. In France the internal commerce is unquestionably more valuable than the external; but its amount can not be ascertained with any degree of accuracy. The principal towns of the interior constituting the centers from which it emanates are Paris, Lyons, Rouen, Lille, Strasburg, Toulouse, Nimes, Nancy, and Perpignan. The external trade, so far at least as it is legitimate, is exactly ascertained by the custom-house entries, and the following table, which

refers to the year 1851, shows its distribution. The values, official and actual, are in millions of francs:

Countries of Production and Destination	Imports. Official Values.	Imports. Actual Values.	Exports. Official Values.	Exports. Actual Values.
United States	192.8	166.3	182.1	216.5
G. Britain and colonies.	133.5	149.8	286.5	364.8
Belgium	132.8	167.8	124.1	143.6
Sardinia	103.7	103.3	52.5	62.3
French colonies	83.6	99.5	73.4	69.2
Zollverein	56.7	75.7	48.1	54.6
British India	53.3	48.3	4.8	5.4
Spain and colonies	66.8	86.1	81.5	76.4
Russia	45.6	58.4	1.0	1.7
Turkey and Egypt	54.5	60.3	32.0	34.1

Countries of Production and Destination	Imports. Official Values.	Imports. Actual Values.	Exports. Official Values.	Exports. Actual Values.
Switzerland	35.0	40.4	51.0	57.8
Algeria	33.0	45.7	117.9	90.0
Holland and colonies	27.2	35.4	14.4	24.1
Two Sicilies	18.1	20.7	15.0	14.0
West coast of Africa	15.5	8.4	1.4	1.2
Brazil	15.2	17.7	31.6	31.5
Sweden and Norway	17.7	25 8	2.6	4.0
Tuscany, Lucca, etc	11.9	11 9	13.2	13.7
Argentine Republic	6 8	6.8	15.4	18.1
Hayti	6 6	8.6	5 4	4.3

—and in less amount, the Barbary States, Austria, the Free Cities, Mexico, Uruguay, Venezuela, Peru, Chile, Portugal, other countries in Africa, China, and Oceanica, New Granada, Greece, Denmark and colonies, the Roman States, Guatemala, Ecuador, Bolivia, Mecklenburg, and Hanover. The whole value of imports at official valuation was 1,158, and at actual valuation 1,291.6 million francs; and the whole value of exports at official valuation was 1,609.5, and at actual valuation 1,413.7 million francs. The proportionate value of goods conveyed by sea and land, and the tonnage employed in the sea trade, were as follows:

Merchandise Imported.	Shipping. No.	Shipping. Tons.	Official Value in Francs.
By sea—in French ships	7,637	862,339	392,100,000
" —in foreign "	9,787	1,339,578	341,800,000
Total by sea	17,424	2,201,917	733,900,000
By land			424,100,000
Total value of imports			1,158,000,000

Merchandise Exported.	Shipping. No.	Shipping. Tons.	Official Value in Francs.
By sea—in French ships	7,752	837,099	559,900,000
" —in foreign "	9,460	1,049,170	701,500,000
Total by sea	17,212	1,886,269	1,261,400,000
By land			368,100,000
Total value of exports			1,629,500,000

The foreign trade of France during the ten years ending with 1851 is exhibited thus:

	ENTRANCES AND IMPORTS.			CLEARANCES AND EXPORTS.		
Official Years.	Shipping. Number.	Shipping. Tons.	Official Value of Merchandise.	Shipping. Number.	Shipping. Tons.	Official Value of Merchandise
1842	18,176	2,072,163	1,142,000,000	18,215	2,110,717	940,000,000
1843	18,404	2,120,965	1,187,000,000	18,649	2,140,912	992,000,000
1844	18,586	2,173,147	1,193,000,000	18,280	2,120,986	1,147,000,000
1845	20,195	2,329,231	1,240,000,000	20,234	2,332,405	1,187,000,000
1846	22,716	2,696,021	1,257,000,000	21,761	2,593,567	1,180,000,000
1847	21,092	2,779,342	1,343,000,000	12,396	1,497,466	1,271,000,000
1848	13,855	1,777,022	862,000,000	12,732	1,367,843	1,153,000,070
1849	15,328	1,890,660	1,142,000,000	13,857	1,483,919	1,423,000,000
1850	16.394	2,079,222	1,174,000,000	15,742	1,675,527	1,531,000,000
1851	17,424	2,201,917	1,158,000,000	17,212	1,886,269	1,629,000,000

The shipping owned in the Empire in 1851 numbered 13,679 vessels of all kinds, having an aggregate measurement of 595,344 tons. The steam marine measured between 40,000 and 50,000 tons. The principal ports open to general trade are—on the English Channel: Dunquerque, Calais, Boulogne, Dieppe, La Havre, St. Malo, and Cherbourg;—on the Atlantic: Brest, Nantes, La Rochelle, and Bordeaux; and—on the Mediterranean: Cette, Marseilles, and Toulon.

25. France has extensive fisheries both in the neighboring seas and its foreign possessions. The latter are chiefly carried on in the seas off Newfoundland, to which a fishing fleet is annually dispatched, and encouraged by large bounties. About 12,000 men are thus employed, and the annual product of the cod fishery alone is stated at 450,000 metrical quintals. The herring fisheries employ about eight thousand men. The whale fishery is also valuable, and produced in 1850 of oil and bone 20,150 quintals. All these are irrespective of the fisheries in the Mediterranean and on the Atlantic coast of France which are very extensive.

26. As intimately connected with all the industrial interests of the country, it may here be proper to advert to its means of internal communication. These include rivers, canals, roads, and railroads. With regard to the rivers, which have already been spoken of, it appears necessary only to add that though they are well situated as to the interior, traversing it in opposite directions, they are not in general easily navigated. Their currents are often so rapid that artificial means must be employed to make head against the stream; their channels in many places are shallow and their mouths frequently encumbered with shifting sands. Much has been done to lessen these evils, but they have not by any means been overcome. The canals are numerous, and both in the directions that have been given them and in their general construction furnishing signal displays of engineering skill. The object has been to connect all the great river basins and give a continuous communication through the interior and from sea to sea. Thus the basins of the Rhone, Loire, Seine, and Rhine are connected, and navigation from the one to the other provided. The whole which France possesses, either completed or in course of completion, are in number 86, with a united length of 2,902 miles.

27. The roads of France are usually classified under the heads of great roads and departmental roads: the former, 26 in number, have a length of 24,900 miles, and the latter, 97 in number, a length of 22,500 miles. Besides these there are a great number of country or by-roads, the length of which is unknown. In regard to railroads, France has been much greater in promise than in fulfillment, and, in proportion to its area and population, is far behind the United States, Great Britain, or Belgium. In 1851 the aggregate length of completed lines was only 2,067 miles, and even in 1856 the length was estimated at 6,500 kilometres, or about 4,030 miles. Since the latter period, however, a number of others then in progress have been completed; but still, in the means of communication, the country is eminently deficient.

28. France is an empire. The constitutional monarchy of 1830 was succeeded in 1848 by the Republic. On the 2d December, 1851, Prince Charles Louis Napoleon Bonaparte, the then president, dissolved the National Assembly, and by a decree established universal suffrage, at the same time proposing a president for ten years, and a second chamber or senate. On the 20th and 21st of the same month, the French people, by 7,439,216 affirmative against 640,737 negative votes, adopted a plebiscite or decree of the people maintaining the authority of the president, and delegating to him the powers necessary for establishing a constitution on the bases proposed. On the 15th January, 1852, an important state paper was published, and in this was contained the constitution under which the French were governed for the ensuing few months. On the 4th November of the same year Napoleon claimed the imperial crown. and on the 7th the restoration of the Empire was decreed by the senate* subject to the acceptance of the people. The result was that 8,157,752 voted for and 254,501 against the Empire, and on the 2d Decem. the republic was formally transmuted into the imperial monarchy.

29. According to the constitution of 1852, as modified to accommodate its provisions to the new order of affairs, the Emperor is responsible to the people alone. The command of the national forces, the exclusive initiation of new laws, and the right to declare the state of siege, are among his leading attributes. Senators are appointed for life by the emperor. The lower chamber, called the Corps Legislatif, consists of members chosen by the people for ten years, in the ratio of one member for every 35,000 inhabitants. The sessions of both chambers are private, and their reports are only published officially. No member has power to originate any law; if amendments are adopted on those proposed by the government they must be sent to the council of state, and can not be discussed if not also adopted by that body. The emperor convokes, adjourns, prorogues, and dissolves the legislature; but in case of dissolution a new one must be elected within six months thereafter. The council of state is composed of members nominated and presided over by the emperor. Petition may be addressed to the senate only. The executive power is exercised through a ministry.

30. The communes, cantons, arrondissements, and departments into which France is divided have a uniform organization. The departments are ruled by prefects, the arrondissements by sub-prefects, and the communes by mayors. In each department there are also several financial officers, an engineer of roads and bridges, a military sub-intendant, and a corps of gendarmerie; and each division and subdivision has its own council or municipal body. The mayors of communes are appointed by the emperor.

31. The administration of justice is uniform throughout the state. Each canton has its justice of peace, who is always a lawyer, and has summary jurisdiction in matters of small importance, and all suits must come before him with a view to an amicable settlement if possible, failing which they are carried before a higher court. The mayors of communes act also as inferior magistrates. In each arrondissement the tribunal of first instance takes cognizance of civil and police causes, and 27 high courts (formerly called *Cours Royales*) have cognizance of appeals against judgments of the tribunals in their respective jurisdictions. Before these courts are tried all offenses against the state. Courts of assize are held in the chief towns of the departments three or four times a year. Commercial causes are carried before tribunals of commerce, the judges of which are elected for three years by the leading merchants of the arrondissement, subject to the approval of the central power. Appeal in causes involving amounts exceeding 1,500 francs lies to the high court. Where there are not tribunals of commerce, their functions are discharged by the tribunals of first instance. In the maritime and manufacturing towns there are also councils of prud'hommes (experienced men), with summary jurisdiction in matters to the amount of 100 francs. In matters involving a larger amount, appeal lies to the tribunal of commerce. Finally, in each military division and naval head-quarters councils of war and maritime councils are held to decide (subject to a council of revision) upon offenses of soldiers and sailors. The high court of appeal from all these courts and tribunals, and for the whole of France, is the court of cassation, which sits in Paris, and the judges of which are appointed from among the most distinguished French lawyers. A high court of justice, chosen from among the high magistracy, and having as jury members of the councils-general of all France, takes cognizance of all attempts against the chief of the state and the public safety. This last court was instituted under the authority granted by the plebiscite of 1852.

32. For military purposes France is divided into 21 divisions and into subdivisions, the latter, generally, corresponding in extent with the civil departments, and named severally from the chief towns being the head-quarters of the officers commanding. In 1857 the effective force numbered 366,064 men, namely: infantry 220,268, cavalry 62,988, artillery 34,282, gendarmerie 22,702, engineers 9,068, general staff, 4,345, train 4,971, veterans 1,135, and others 6,295; besides which the grand army embraces the foreign legion in Algeria 6,110 men, the native African troops 6,737 men, and the Garde de Paris 2,483 men. This force is kept up partly by voluntary enlistment, but to a much greater extent by what is called "conscription," in virtue of which all Frenchmen between the ages of 20 and 26 years are liable to be forced into military service.

33. The navy is a much less formidable establishment than the army. During the last war with England it was almost annihilated, but it has of late years again become an important force. In 1855 it was composed of—sailing vessels: 53 ships of the line (6 of 120, 14 of 100, 19 of 90, and 11 of 80 and 82), carrying 5,096 guns; 58 frigates (42 of 50 to 60, and 16 of 40 to 46), carrying 3,955 guns; 39 corvettes, carrying 868 guns; 101 brigs, schooners, cutters, etc., carrying together, 1,066 guns, and 39 small armed vessels, transports, etc., carrying 788 guns; and—steam vessels: 3 ships of the line, 20 frigates, 30 corvettes, and 64 smaller vessels, together having 28,750 horse-power. Besides these the navy has attached to it a considerable number of gun-boats, bomb-ships, etc. The whole fleet at the period named was under two admirals, 17 vice-admirals, and 37 rear-admirals, and there were 108 captains of ships, and 238 captains of frigates, 658 lieutenants, and 614 ensigns. The great naval harbors of France are Cherbourg, Brest, L'Orient, Rochefort, and Toulon.

34. Except to the northeast, France is admirably defended by nature—the Atlantic coast is difficult of access and strongly fortified; the Pyrenees on the southwest are practically impassable, and on the eastern the walls of the Alps, Jura, and the Vosges equally so. But toward the northeast, on the Belgian, Prussian, and Bavarian frontier, the country has no natural defenses, and hence in this direction military science has done its utmost in constructing fortresses to command all the leading approaches, and in no country in the world are there so many strongly fortified towns in the same extent of territory. Along this frontier are the fortresses of Dunquerque, Lille, Douai, Cambrai, Valenciennes, Condé, Maubeuge, Avesnes, Rocroy, Givet, Charlemont, Mezieres, Sedan, Thionville, Metz, Bitche, and Weissembourg. The Rhenish frontier, the proper defense of which is not the Rhine, but the Vosges Mountains, is defended by the fortresses of Haguenau, Strasbourg, Schelestadt, and Neuf Brisach. Béfort, Bésançon, and the Fort de l'Ecluse command the approaches from Switzerland. Toward the Alps and the Sardinian frontier are Grenoble and Briançon. The Pyrennean passes are defended by Perpignan, Bellegarde, Mont Louis, St. Jaen-Pied-de-Port, and Bayonne. In the interior many of the towns are also fortified; but Paris, with its continuous wall and detached forts, is the most important in every point of view. The detached forts

* The following is a copy of a portion of the decree.

Art. I.—La dignité impériale est rétablie. Louis Napoleon Bonaparte est Empereur, sous le nom de Napoleon III.

Art. II.—La dignité impériale est héréditaire dans la descendance directe et légitime de Louis Napoleon Bonaparte, de mâle en mâle, par ordre de primogéniture.

Art. III.—Louis Napoleon Bonaparte, s'il n'a pas d'enfant mâle, faut adopter les enfants et descendants légitimes dans la ligne masculine, des frères de l'Empereur Napoleon I.

erected in recent times around Lyons also render that city a very important military position. The great naval dock and building yards have already been named; but sloops of war are also built at Bayonne, Nantes, and St. Servan, a suburb of St. Malo.

35. The general revenue of France is derived from direct and indirect taxes, and from customs and import duties. The estimates having been voted by the chambers, the amount of the direct taxes is distributed among the departments according to their extent, industrial progress, population, and presumed degree of prosperity. The prefect, aided by the council-general, allots to each arrondissement its share of the imposition; the sub-prefect, in concert with the council of the arrondissement, subdivides this quota among the cantons and communes, and, finally, the mayor, with the assistance of the municipal or commercial council, assigns to each inhabitant the amount he has to pay. The indirect taxation comprises land and assessed taxes, post-office and mail service, import and export duties, licenses, stamps, etc. According to the estimates for 1855 the receipts would amount to 1,598,286,528 francs, and the expenditures voted amounted to 1,601,586,732. The credits to the several ministerial bureaux were as follows: state and imperial household, 13,066,200; justice, 27,419,770; foreign affairs, 10,011,600; finance (public debt, 454,450,851), 771,798,900; interior, 136,880,980; war, 339,861,842; marine and colonies, 122,650,599; public instruction and religion, 63,758,936; and agriculture, commerce, and public works, 111,837,741. The consolidated public debt on the 1st January, 1855, amounted to 6,082,877,852 francs, and the annual interest thereon to 236,442,772 francs. Besides this, in April, 1856, the floating debt amounted to 761,424,500 francs, which sum included sayings' bank deposits, commercial and public establishments deposits, securities of receivers-general, treasury notes, etc.

36. France has a regularly organized system of public education. Nearly every commune has at least one school of elementary instruction, and where the population exceeds 6,000 a school of superior instruction. Every department has a normal school for the education of teachers, either by itself or by uniting with some other department. These schools are supported partly by private means and partly by communal, departmental, or general governments. All the poor are sent free to the elementary schools, and a certain number are selected after examination for a gratuitous education at the superior schools. Before the Revolution France had 23 universities; but under Napoleon a body was organized under the title of University, and presided over by the minister of public instruction. With some modifications this body still has the chief direction of educational matters. Twenty-six university academies were established in different parts, and the whole territory was divided into as many circuits, one to each. The seats of these university academies were—Aix, Amiens, Angers, Bésançon, Bordeaux, Bourges, Caen, Cahors, Clermont, Dijon, Douai, Grenoble, Limoges, Lyon, Metz, Montpelier, Nancy, Nimes, Orléans, Paris, Pau, Poitiers, Rennes, Rouen, Strasbourg, and Toulouse. The number of these has been recently increased. Each academy consists of a rector, who inspects all schools within his circuit, and communicates with the central authorities; and a council of ten members, forming the academic administration. The plan of instruction comprehends the five faculties of theology, law, medicine, literature, and the sciences, together with colleges or high schools, in which preparatory instruction is furnished. These colleges are established in almost all the chief towns of arrondissements. Besides these establishments there are several colleges and special schools of high repute in Paris and other large cities. The lay religious order of Christian Brothers devotes itself exclusively to the education of boys, and almost all the orders of nuns are actively engaged in the education of girls.

37. The predominant religion in France is the Roman Catholic. In 1851 there were 34,931,032 Catholics, 480,507 Calvinists, 267,825 Lutherans, 73,995 Jews, and 26,328 belong to other denominations; of the remainder the predilections were unknown. Both the Catholic and Protestant clergy are paid by the state. The French territory is divided into 15 Roman archdioceses and 50 dioceses; and in general a bishop's see is co-extensive with a department. In a few cases two departments are united under one bishop, and in four instances the diocese is less than the department. The French Lutherans, who are chiefly resident in Alsace, are under the consistory of Strasbourg: the Calvinists, a much more important body, have meeting-houses in 51 departments, and are governed by consistories, five of which form a synod. The Roman Church has about 36,835 priests, a number about equal to the number of communes. Before the first Revolution the country abounded with monastic orders—the male establishments have, with few exceptions, been abolished, but those for females for the most part remain. The French nuns, however, do not usually lead a meditative life, but are actively engaged in attendance upon the sick or in the instruction of youth. The Catholic clergy are mainly educated in seminaries established for the express purpose of clerical instruction. There is one establishment for the higher studies at Paris, and above 200 seminaries scattered throughout France. Strasbourg is the chief seat of instruction for the clergy of the Lutheran creed, and Montauban for those of the Calvinistic or Reformed Church.

38. The principal stock from which the nation derives its origin is the Celtic. Cæsar found the Celts occupying nearly all the midland, western, and southern parts of the country. The southwest was occupied by the Aquitanians, whose territory extended from the Garonne to the Pyrenees; and probably some Ligurian tribes were intermingled with the Celts on the shores of the Mediterranean. Some Greek settlements, of which Massilia (Marseilles) was the chief, existed along that coast. The northeast, from the Seine and Maine to the Channel and the Rhine, was occupied by the Belgæ, a Celtic people, some of whom, in Cæsar's time, were mixed with the Germans, without, however, having lost their family characteristics. The immediate vicinity of the Rhine was occupied by tribes of Germanic origin. The subjugation of the country by the Romans produced an intermixture of Roman with the native races; and the modern French language shows how extensive and how permanent has been the influence of the Latin tongue.

39. At the breaking up of the Roman Empire three of the invading tribes possessed themselves of France: the Visigoths south and west of the Loire, the Burgundians in the southeast, and the Franks in the north and east. A branch of the Celtic family, migrating from the British Isles, settled in the extreme west, and have transmitted to the present age their peculiarity of language and the name of the island (Bretagne or Britain) from which they came. Politically, the ascendancy of the Franks extinguished the independence of their co-invaders; but the tribes which succumbed remained in the settlements they had acquired, and have influenced more or less the characteristics of their descendants. But notwithstanding these admixtures, the Celts may still be considered as the main stock of the French people.

40. As the predominance of the Celtic race may be inferred from that of their adopted language in the greater part of France, so the local predominance of other tribes is indicated by that of their peculiar tongue. The Breton, an adulterated form of the language imported by the British settlers, is still the language of the rural districts of Bretagne; the Basque is still found at the foot of the Pyrenees, and may be considered as the representative of the ancient dialect of the Aquitanians. In Alsace the German language is predominant, a circumstance which may be ascribed to that province having been more completely occupied by those tribes which overthrew the Roman Empire, and which have preserved their original tongue; and also to the long incorporation of Alsace with Germany and its comparatively late annexation to the rest of France. The dialect of Lorraine, the province adjacent to Alsace, may be considered also as having strong affinity to that of Germany from similar causes to those stated above.

41. Long before the arrival of Julius Cæsar a considerable portion of the southeast of France formed a Roman province under the name of Gallia Transalpina. The remainder of the country is described by Cæsar under three principal divisions—one in the north, occupied by the Belgæ; a second in the southwest, occupied by the Aquitani, and the remainder occupied by the Galli proper or Celtæ. After the conquest a division into four provinces took place, and at a still later date their number was increased to twelve. Were it practicable to further trace the various subdivisions which the country subsequently underwent, it would scarcely be worth the while. Suffice it to say that at the commencement of the Revolution France was divided into thirty-three provinces. In 1789, when the love of change became paramount, the provincial division was ignored, and the whole territory, including the island of Corsica, was parceled out into 86 departments, and each department into arrondissements, cantons, and communes. This division has since maintained its ground, and perhaps deserves its popularity, because instead of having merely an artificial nomenclature it has the merit of being a kind of natural classification—each department being named after the most important physical feature which it contains, and thus furnishing in the name some knowledge of the space which it designates. The provinces, however, though no longer recognized in legal documents, continue so familiar to the French themselves, and are so frequently mentioned not only by earlier writers but in the geographical, historical, and statistical details even of the present day, that a knowledge of their locality is still of great importance.

42. The population of France at the commencement of the eighteenth century was about 19,669,320, exclusive of Corsica and part of Lorraine, which were not then united to the monarchy. In the year 1762 the population had increased to 21,769,163, inclusive of Corsica and the whole of Lorraine. In 1784 it had further increased to 24,800,000. The population, according to the different census returns of the present century, has been stated to be as exhibited in the following figures:

1801	27,349,003	1821	30,461,875	1841	34,230,178
1811	29,092,784	1831	32,569,223	1851	35,781,628

and in 1856 the whole had increased to 36,039,364 souls.

43. In the interval of thirty-four years, from 1817 to 1850 inclusive, a special term of observation and record, there were born in France 16,953,957 male children, and 15,972,905 female children. These numbers give the annual averages of male and female births to be respectively 498,646 and 469,791, which are nearly in the ratio of seventeen to sixteen. This ratio is general throughout France, difference of climate between the north and south having no sensible effect upon it. It was not constant, however, throughout the whole period. In the first eight years (1817–1824) the ratio was 1.0654, and the mean of the last eight years (1843–1850) was 1.0563—the mean of the whole period is 1.0614. In other words, during the first period (1817–1824) for every 10,000 females there were 10,654 male births, and in the last period (1843–1850) there were 10,563 boys born for every 10,000 girls. The average on the thirty-four years is 10,614 male against 10,000 female births.

44. In the same period of thirty-four years the number of illegitimate children born throughout the country was 1,202,208 males, and 1,155,690 females, which numbers are in the ratio of nearly twenty-five to twenty-four, showing in this class of infants a nearer approach to equality in the number of the opposite sexes at birth than in the case of legitimate children.

45. The ratio of deaths of the two sexes during the period under consideration has also varied. In the first eight years (1817–1824) it was 1.0215, or in other words, 10,215 males died for every 10,000 females; in the last eight years (1843–1850) it was 1.0039, and the means of the whole period give the ratio 1.0143, or on the average of the thirty-four years 70 males died for every 69 females. For the whole period the mean annual number of births was 968,437, and of deaths 812,227, resulting in an increase of population equal to 156,210 per annum. The mean annual number of marriages was 258,333. These numbers afford ready means for checking the census returns.

46. The population increased continuously throughout the period. The mean annual increase (156,210) is extremely small, being only one 211th part of the mean population for the whole period, which was about 32,972,000. This increase indeed is so small that if it continue to bear the same ratio to the population it would take France no less than *eighty-six* years to increase her population by one half, and *one hundred and forty-seven* years to double its present amount.

47. The ratio of the population to the births increased continuously also throughout the period. In the first eight years (1817–1824) it was 31.8; in the last eight years (1843–1850) 36.4, and the mean on the thirty-four years is 34.0. These numbers multiplied into the corresponding births give the whole population. But in the case of a population that is stationary (as that of France may be almost considered to be), the population is equal to the annual births multiplied by the mean duration of life. The numbers 31.8, 34.0, and 36.4 therefore represent approximately the mean duration of life in France for each section of the period. Thus in 1807 the mean duration of life was 31.8 years; seventeen years later it had increased to 34.0 years, and it is now 36.4 years. Before the first Revolution the mean duration of life in France was, according to Duvillard's tables of mortality, 28¾ years. Since that time, there-

fore, it appears that there is an increase in the mean duration of life of rather above seven years—a result to be attributed to the introduction of vaccination, to improved sanitary conditions, and to the more easy circumstances which the people enjoy.

48. The following table exhibits the names of the departments, and the names of the old provinces from which they were formed; also the area, population (1851), capitals, and chief towns of each department:

	Departments.	Old Provinces.	Area, sq. m.	Population.	Capitals and Chief Towns.
Northeastern Departments.	Seine	Isle de France	183	1,422,065	Paris,§‖ 1,053,262; Belleville, 34,915; La Balignolles-Monceaux, 19,380; La Villette, 18,651; Neuilly, 15,897; Vaugirard 15,551; St. Denis, 15,702; Gentilly, 13,877; Passy, 11,134; Vincennes, 8,451; Boulogne, 7,602.
	Seine-et-Oise	Isle de France	2,170	471,882	*Versailles*,§‖ 35,367; St. Germain, 12,027; Etampes, 8,083; Pontoise, 5,637.
	Seine-et-Marne	Isle de France	2,279	345,076	Fontainebleau,‖ 10,365; Meaux, 9,906; *Melun*, 7,487; Provins, 6,961.
	Aisne†	Isle de France	2,847	558,989	St. Quentin,§ 24,324; *Laon*, 10,098; Soissons, 9,477; Chauny, 6,290; Chateau-Thierry, 5,629.
	Oise	Isle de France	2,252	403,857	*Beauvais*, 14,216; Noyon, 6,322; Senlis, 5,802; Clermont, 5,144.
	Somme*	Picardie	2,335	570,641	*Amiens*,§‖ 52,149; Abbeville,‖ 19,158; Peronne, 4,887; Doulens, 4,357.
	Pas-de-Calais*	Artois	2,571	692,994	Calais,‡‖ 76,287; Boulogne,‡‖ 30,783; *Arras*,§‖ 24,321; St. Omer,§‖ 22,054; St. Pierre, 11,524.
	Nord*	Flandre	2,199	1,158,285	*Lille*,§‖ 75,795; Dunquerque,‡ 29,080; Tourcoing,§ 27,615; Valenciennes,§‖ 28,263; Cambrai,§ 21,344; Douai,§ 20,528; Wazemmes,§ 13,086.
	Ardennes*	Champagne	2,026	331,296	Sedan,§‖ 37,027; Charleville, 9,162; Rethel, 8,360; Givet, 5,639; *Mezieres*, 3,926.
	Marne	Champagne	3,166	373,302	Rheims,§‖ 45,754; *Chalons-sur-Marne*, 15,854; Vitry, 8,253; Epernay, 5,926.
	Aube	Champagne	2,359	265,247	*Troyes*,§‖ 27,376; Bar-sur-Aube, 4,442; Romilly, 3,738; St. Martin-es-Vignes, 3,651.
	Haute-Marne	Champagne	2,422	268,398	Langres, 11,293; St. Dizier, 7,429; *Chaumont*, 6,374; Joinville, 3,505.
	Yonne	Champagne	2,861	381,133	*Auxerre*, 14,166; Sens, 10,645; Joigny, 6,455; Avallon, 5,922.
	Vosges	Lorraine	2,271	427,409	*Epinal*, 10,984; Mirecourt, 5,443; Remiremont, 5,349.
	Meurthe	Lorraine	2,486	450,423	*Nancy*,§‖ 45,129; Luneville,§ 12,164; Toul, 8,506; Dieuze, 3,927.
	Meuse†	Lorraine	2,407	328,657	*Bar-le-Duc*, 14,816; Verdun, 13,941; St. Mihiel, 5,274; Commercy, 3,424.
	Moselle†	Lorraine	2,359	459,684	*Metz*,§‖ 43,484; Thionville, 8,361; Serreguemines, 5,658; St. Avold, 4,021.
	Bas-Rhin†	Alsace	1,919	587,843	*Strasbourg*,§‖ 75,565; Haguenau, 11,351; Bischwiller, 6,642; Saverne, 6,407.
	Haut-Rhin	Alsace	1,481	494,147	Mulhausen,§‖ 29,574; *Colmar*,§‖ 23,348; Belfort, 7,847; Ribeauville, 7,338; Thann, 5,864.
	Doubs†	Franche-Comte	2,025	296,679	*Besançon*,§‖ 41,297; Montbeliard, 6,144; Portarlier, 4,953.
	Jura†	Franche-Comte	1,944	313,299	Dole, 10,331; *Lons-le-Saulnier*, 8,456; Salins, 7,112; Arbois, 6,901; St. Claude, 5,897.
	Haute-Saône	Franche-Comte	2,071	347,469	Gray, 7,151; *Vesoul*, 6,621; Luxeuil, 4,085; Champagney, 3,328.
	Saone-et-Loire	Bourgogne	3,315	574,720	Chalon-sur-Saône,§ 16,589; *Macon*, 12,653; Autun, 11,997; La Creusot, 8,083; Tournus, 5,324.
	Côte-d'Or	Bourgogne	3,388	400,297	*Dijon*,§‖ 32,252; Baune, 10,969; Auxonne, 6,265; Chatillon, 5,061.
	Seine Inferieure*	Normandie	2,332	762,039	*Rouen*,§‖ 100,265; La Havre,‡ 29,954; Dieppe,‡ 17,669; Elbeuf,§ 17,534; Ingouville, 14,378; Fecamp, 14,401.
	Eure	Normandie	2,290	415,777	*Evreux*,§‖ 12,877; Louviers,§‖ 9,570; Bernay, 7,362; Vernon, 6,463; Pont-Audemer, 6,310.
	Orne	Normandie	2,354	439,884	*Alençon*,§‖ 14,760; Flers, 8,461; La Ferte-Mace, 6,039; Argentan, 5,637; Seez, 5,630.
	Calvados*	Normandie	2,153	491,210	*Caen*,§‖ 45,280; Lisieux,§ 11,345; Honfleur,‡ 9,361; Bayeux, 9,360; Falaise, 8,961.
	Manche*	Normandie	2,231	600,882	Cherbourg,‡ 28,112; Granville, 10,035; *St. Lo*, 9,241; Avranches, 8,932; Coutances, 8,064.
	Ille-et-Vilaine*	Normandie	2,604	574,618	*Rennes*,§‖ 39,505; St. Servan, 9,964; St. Malo,‡ 9,612; Fougeres, 9,083; Vitri, 8,872.
	Côtes-du-Nord*	Normandie	2,876	632,613	*St. Brieuc*,‡ 14,053; Dinan,§ 8,437; Guincamp,§ 7,156; Loudeac, 6,369.
	Finistere*	Bretagne	2,680	617,710	Brest,‡ 61,161; Morlaix,§‖ 12,393; Lambezellec, 11,031; *Quimper*,‖ 10,902; Crozon, 8,858.
	Indre-et-Loire	Touraine	2,368	315,641	*Tours*,§‖ 33,530; Loches, 5,791; Chinon, 4,859; Amboise, 4,672; Chouzé, 3,852.
	Eure-et-Loir	Orleanois	2,275	294,892	*Chartres*,§‖ 18,234; Nogent-le-Rotrou, 6,983; Dreux, 6,764; Chateaudun, 6,745.
	Loir-et-Cher	Orleanois	2,331	261,892	*Blois*,‖ 17,749; Vendome, 9,325; Remorantin, 7,962; Mer, 4,258.
	Loiret	Orleanois	2,609	341,029	*Orleans*,§‖ 47,393; Montargis, 7,522; Gien, 6,112; Beaugency, 5,258.
Northwestern Departments.	Nievre	Nivernois	2,651	327,161	*Nevers*,§‖ 17,045; Clamecy, 6,179; La Charité, 4,944; Donzy, 4,057.
	Allier	Bourbonnois	2,869	336,758	*Moulins*,§‖ 14,781; Mont-Luçon, 8,922; Cusset, 5,510; Gannat, 5,422.
	Cher	Berri	2,862	306,261	*Bourges*,§‖ 25,037; St. Amand, 8,232; Vierzon, 6,730; Dun-le-Roi, 4,948; Sancerre, 3,708
	Indre	Berri	2,711	271,938	*Chateauroux*,§‖ 15,931; Issoudun,§ 13,346; Le Blanc, 6,788; Argenton, 5,332.
	Morbihan*	Berri	2,635	473,171	L'Orient,‡ 25,694; *Vannes*, 13,585; Ploermel, 8,413; Sargeau, 7,425.
	Loire-Inferieure*	Berri	2,730	535,664	*Nantes*,‡§‖ 96,362; Reze, 6,644; Vallet, 6,268; Vertou, 5,949; St. Etienne, 4,778.
	Maine-et-Loire	Anjou	2,797	515,452	*Angers*,§‖ 46,599; Saumur,‖ 14,119; Chollet, 10,385; Beaufort, 5,207.
	Mayenne	Maine et Perche	1,990	374,566	*Laval*, 19,218; Mayenne, 9,933; Chateau-Gontier, 6,799; Ernée, 5,614.
	Sarthe	Maine et Perche	2,403	473,071	*Le-Mans*, 22,779; La Fleche, 7,048; Mamers, 5,788; Sable, 5,282.
	Creuse	Marche	2,239	287,075	Aubusson,§ 5,666; *Gueret*, 5,033; La Souteraine, 3,680; Felletin, 3,454; Bourganeuf, 3,384
	Haute-Vienne	Limousin	2,171	319,379	*Limoges*,§‖ 26,924; St. Yrieix, 7,715; St. Junien, 5,908; Rochechouart, 4,198.
	Deux-Sevres	Poitou	2,348	323,615	*Niort*, 18,727; Parthenay, 5,046; St. Maixent, 4,121; Melle, 2,718.
	Vendee*	Poitou	2,631	383,734	Noirmoutier, 8,262; Fontenay-le-Comte, 7,884; *Napoleon-Vendee*, 7,498.
	Vienne	Poitou	2,664	317,305	*Poitiers*,§ 29,277; Chatellerault,§ 12,433; Mont-Morillon, 5,288; Loudun, 4,577.
	Charente-Inferieure*	Aunis	2,769	469,992	Rochefort,‡ 24,330; *La Rochelle*,†§‖ 16,507; Saintes, 11,566; St. Jean d'Angely, 6,413.
Southwestern Departments.	Gironde*	Guienne	4,186	614,387	*Bordeaux*,‡§‖ 130,937; Lebourne, 12,650; Bazas, 10,133; Blaye, 4,659.
	Dordogne	Guienne	3,543	505,789	*Perigneux*,§ 13,547; Bergerac,§ 10,402; Sarlat, 5,950; Montignac, 4,146.
	Tarn-et-Garonne	Guienne	1,440	237,553	*Montauban*,§‖ 24,726; Moissac, 10,685; Castel-Sarrasin, 7,028; St. Antonin, 5,407.
	Aveyron	Guienne	3,621	394,183	*Rhodez*,§‖ 10,280; Milhau,§‖ 10,041; Ville-Franche,‖ 9,513; St. Affrique, 6,618.
	Charente	Angoumois	2,274	332,912	*Angoulême*,§‖ 21,155; Cognac,‖ 5,887; Champniers, 4,102; Ruffec, 3,654.
	Correze	Limousin	2,296	320,864	*Tulle*,§ 11,895; Brives-le-Gaillarde, 5,985; Ussel, 4,306; Argental, 3,535.
	Lot	Gascogne	1,539	296,224	*Cahors*,§‖ 13,359; Figeac, 7,433; Gourdon, 5,066; St Cere, 4,406.
	Lot-et-Garonne	Gascogne	2,070	341,345	*Agen*,‖ 16,027; Villeneuve d'Agen,‖ 13,212; Marmande, 8,336; Tonneins, 7,549.
	Landes*	Gascogne	3,603	302,196	Dax, 5,842; Aire, 4,817; *Mont-de-Marsan*, 4,463; St. Sever, 4,282.
	Hautes-Pyrenees†	Gascogne	1,794	250,934	*Tarbes*,‖ 14,004; Bagnères, 6,401; Lourdes, 4,434; Campan, 3,919.
	Gers	Gascogne	2,432	307,479	*Auch*,‖ 12,141; Condom, 7,210; Lectoure, 6,625; Vic Fezenzac, 4,151.
	Basses-Pyrenees*†	Bearne	2,908	446,997	Bayonne,‡§ 18,870; Oleron,‖ 16,908; *Pau*, 16,196; Orthés, 9,948; Salies, 8,600.
	Haute-Garonne†	Languedoc	2,397	480,794	*Toulouse*,§‖ 93,379; Revel, 5,960; Villemur, 5,314; St. Gaudens, 5,059.
	Aude*	Languedoc	2,443	289,747	*Carcassone*,§‖ 20,005; Narbonne,§ 13,066; Castelnaudary,§ 9,992; Limoux, 7,776; Cannes, 5,557; La Nouvelle.†
	Herault*	Languedoc	2,651	389,286	*Montpelier*,§‖ 37,611; Beziers,§ 19,333; Cette,‡ 19,124; Bedarieux, 9,959; Agde, 9,115.
	Tarn	Languedoc	2,229	363,073	Castries,§‖ 20,815; *Albi*,§ 13,788; Mazamet, 9,894; Gaillac, 8,245; Lavaur, 7,331.
	Ariege†	Foix	1,849	267,435	Pamiers, 7,770; *Foix*, 4,684; Mirepoix, 4,476; St. Girons, 3,981; Mazeres, 3,694.
	Pyrenees-Orientales*†	Rousillon	1,589	181,955	*Perpignan*,‖ 21,783; Rivesaltes, 3,829; Ceret, 3,586.
Southeastern Departments.	Rhone	Lyonais	1,045	574,745	*Lyon*,§‖ 177,190 (in 1856, 192,721); La Guillotiere,§ 28,128; La Croix-Rousse, 18,933; Tarare, 10,334.
	Loire	Lyonais	1,847	472,588	St. Etienne,§‖ 56,003; Roanne,§ 13,397; St. Chamond, 8,597; *Montbrison*, 5,994.
	Puy-de-Dome	Auvergne	3,102	596,897	*Clermont-Ferrand*,§‖ 33,516; Thiers,§ 13,964; Riom, 12,386; Arnbert, 8,133.
	Cantal	Auvergne	2,218	253,329	*Aurillac*,‖ 10,917; St. Flour, 5,786; Condat, 3,630; Mauriac, 3,594; Maurs, 3,081.
	Haute-Loire	Languedoc	1,912	304,615	*Le Puy*,§ 15,723; Yssengeaux, 7,628; Brionde, 4,940; Retournac, 3,433.
	Ardeche	Languedoc	2,123	386,505	Annonay, 13,214; Aubenas, 7,410; *Privas*, 5,258; Tournon, 4,861; St. Andeol, 4,857.
	Gard*	Languedoc	2,316	408,163	*Nimes*,§‖ 58,619; Alais,§ 13,871; Beaucaire,§ 11,045; Uzes, 6,934; St. Gilles, 5,984.
	Lozere†	Languedoc	1,997	144,705	*Mende*, 6,015; Marvejols, 4,386; Langogne, 2,397; Florac, 1,904.
	Ain†	Bourgogne	2,260	372,939	*Bourg-en-Bresse*,‖ 12,068; Belley, 4,517; Gex, 2,874; Nantua, 3,746.
	Isere†	Dauphine	3,251	603,497	*Grenoble*,§‖ 31,340; Vienne,§ 20,753; Voiron, 8,484; Tullins, 4,618.
	Hautes-Alpes†	Dauphine	2,131	132,038	*Gap*,‖ 8,797; Embrun, 4,794; Briançon (elevation 7,859 feet), 4,439; Chateauroux, 1,772.
	Drome	Dauphine	2,528	326,846	*Valence*,§‖ 16,122; Romans, 10,869; Montelimar, 9,862; Crest, 4,948.
	Vaucluse†	Venaissin	1,376	264,618	*Avignon*,§‖ 35,896; Carpentras,§ 10,711; Orange, 9,824; Cavaillon, 7,405.
	Bouches-du-Rhone*	Provence	2,326	428,989	*Marseille*,‡§‖ 192,527; Aix,§‖ 27,255; Arles,‖ 23,208; Tarascon, 12,539; La Ciotat,‡ 5,194.
	Basses-Alpes†	Provence	2,697	152,070	*Digne*,‖ 4,781; Manosque, 4,714; Sisteron, 4,576; Valensolle, 3,151.
	Var*†	Provence	2,819	357,967	Toulon,‡‖ 69,474; Grasse, 11,802; Hyeres, 9,999; *Draguignan*, 8,972.
	Corse or Corsica*	Island	3,378	236,251	Bastia,‡ 12,571; *Ajaccio*,‡ 11,944; Corte, 4,719; Bonifacio,‡ 3,380; Sartene, 2,658.
	Total		207,149	35,781,628	

49. Paris, the capital of the French Empire, and, after London, the largest, wealthiest, and most populous city of Europe, is situate on both sides and on two islands of the Seine, 112 miles from its mouth, in latitude (Observatory) 48° 50′ 12″ north, and longitude 2° 20′ 30″ east from Greenwich. The city is surrounded by fortifications, consisting of a wall 33 feet in height, bastioned and terraced, lined with a fosse about 20 feet deep, and embracing both banks of the river with a continuous inclosure, and of outworks composed of fourteen detached forts. These fortifications take in much of the suburbs, and even of the surrounding country; but the proper limits of the city are traced by an interior wall with 50 gates or barriers. Outside these and their connecting wall is a large zone finely planted, which forms an excellent promenade. It receives the name of the Outer Boulevards, to distinguish it from the Inner Boulevards, which form a similar interior zone, consisting in its finest part of a magnificent central thoroughfare, bounded on either side with a double row of trees, under which a broad and elevated pathway has been formed, and lined with elegant shops and mansions, the whole forming a scene of splendor which no other capital in Europe can equal.

50. The Seine traverses the city in a west-northwest direction, and has a medium breadth of 450 feet. It is shallow, and navigable only by barges and small steamers. Its quays are built of solid masonry, and form large terraces with a roadway in the middle and a footpath on either side, generally planted. They extend about 11 miles, and in addition to the splendid walks they afford, serve also to protect the lower parts of the city from inundation. The number of bridges is twenty-seven, all of stone with the exception of seven suspension bridges, three of a combination of stone and iron, and one of wood. The most deserving of notice are—the Pont d'Austerlitz, 400 feet long by 37 feet wide, with stone piers, and five arches of cast iron; the Pont Neuf, the longest of all, and one of the principal thoroughfares; the Pont des Arts; the Pont de la Concorde, and the Pont de Jena. These are all handsome bridges, and several are highly ornamented with sculpture, entablature, and statuary.

51. The streets in the newer parts of the city are straight, wide, airy, and excellently paved; but, as a general rule, they are irregular in the extreme, and many, even in the leading thoroughfares, are so narrow that carriages have difficulty in passing. The best streets after the Inner Boulevards are the Rue de Rivoli, on the north bank of the Seine; the Rue de la Paix, continued across the Place de Vendôme, and thereafter by the Rue de Castiglione; the Rue Royale; the Rue de Chaussé d'Antin, and the Rue des Pyramids. The squares are neither large nor numerous. By far the finest, both from its position and buildings and monuments, is the Place de la Concorde. It is situate between the gardens of the Tuileries on the east and the Champs Elysées on the west, and opens south on the Pont de la Concorde and north on the Rue Royale. The only others of the squares which may claim notice are—the Place de Vendôme, the Place de la Bastile, the Place du Châtelet, and the Place du Carrousel. The houses are almost all built of white calcareous stone. Their general height is from five to six stories, arranged as distinct tenements, and reached by a common stairs. Very frequently, however, the stair is not entered immediately from the street, but is preceded by a *porte cocher* or carriage entrance, leading into a court, around the sides of which the houses rise in lofty piles.

51. The public buildings of Paris are so very numerous that an enumeration of the most remarkable can here only be attempted. The most celebrated of the churches is the Cathedral of Notre Dame, situated on one of the islands of the Seine, called the Ile de la Cité. It is a vast cruciform structure, with a lofty west front flanked by two massive square towers. Length 390 feet, width of transept 144 feet, height of vaulting 102 feet, height of towers 204 feet, and width of front 128 feet. The building is in an early and pure style of pointed architecture, and its ornaments are remarkable for their high finish and delicacy. The Madeleine

* Maritime departments. † Frontier departments. ‡ Sea-ports. § Manufacturing towns. ‖ Trading towns.

WESTERN EUROPE

EXPLANATION.

Capitals ..... ✻ PARIS
..... of Provinces ⊙
Principal Towns ○ Brest
Rail Roads .....
Canals .....
Battle Fields ⅄ 1812

SCALE OF STATUTE MILES.
0 20 40 80 120 160
100 Geographical or 115,26 Statute Miles, to one inch.

14 12 10 8 6 4 WEST 2 LONGITUDE FROM 0 GREENWICH 2 EAST 4 6 8 10 12

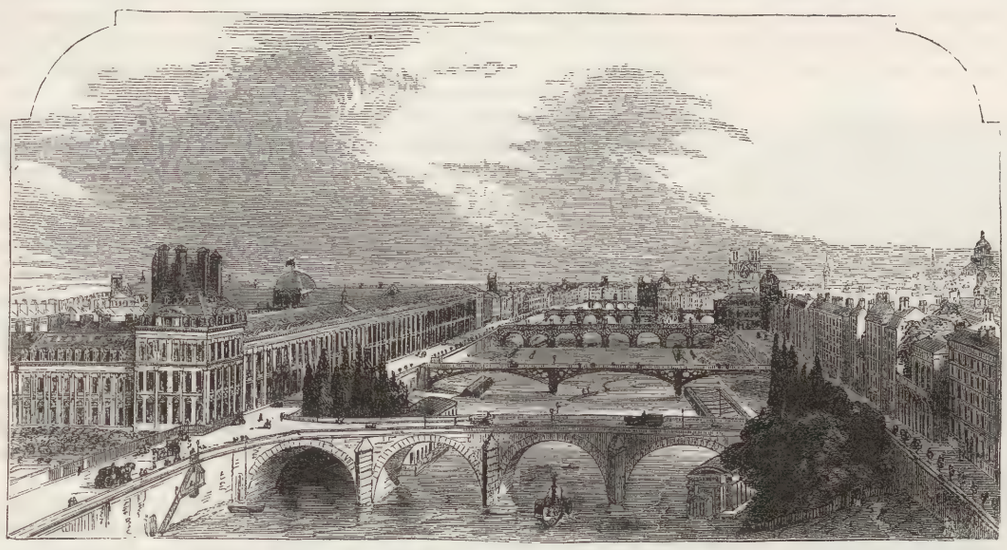
54 52 50 48 46 44 42 40 38 36

NORTH SEA
ENGLISH CHANNEL
BAY OF BISCAY
MEDITERRANEAN SEA
ATLANTIC OCEAN
AFRICA
ENGLAND
HOLLAND
BELGIUM
FRANCE
SPAIN
PORTUGAL
DENMARK
GERMANY
SWITZERLAND
ITALY
CORSICA
SARDINIA
BALEARIC ISLANDS

LONDON · Bristol · Greenwich · Dover · Southampton · Portsmouth · Brighton · Exeter · Dorchester · Hartland Pt. · Lands End · Scilly Is. · Lizard Head · I. of Wight · Guernsey · Jersey · Alderney · Channel Is. to Great Britain · Cherbourg · Caen · Honfleur · Havre · Rouen · Dieppe · Boulogne · Calais · Dunkirk · Ostend · Ushant I. · C. St. Matthieu · Brest · St. Brieuc · St. Malo · Mt. Menez · Dumper · L'Orient · Pt. Pennark · Belle Isle · Vannes · Nantes · Paimboeuf · Loire River · Noirmoutier Is. · I. Dieu · Napoleon Vendee · Fontenay · La Rochelle · I. de Re · Oleron I. · Rochefort · River Gironde · Bordeaux · Libourne · Blaye · Bazas · Mont de Marsan · Bayonne · St. Jean de Luz · San Sebastian · Yorunaga · C. Penas · C. Ortegal · Ferrol · Corunna · Aviles · Oviedo · Betanzos · Santander · Santiago de Compostela · Lugo · Bilbao · C. Finisterre · Pena de Peranda · Pontevedra · Leon · Saldana · Vitoria · Tampluna · Astorga · Burgos · Logrono · Crense · Palencia · Lerma · Tarazona · Bonaventa · Braganca · Zamora · Valladolid · Soria · Saragossa · Tuleda · Huesca · Barbastro · Vich · Gerona · Manresa · Lerida · Mataro · Barcelona · Reus · Tarragona · Calatayud · Oporto · Salamanca · Segovia · Siguenza · Daroca · Alcaniz · Aveiro · Viseu · Almeida · Ciudad Rodrigo · Avila · Guarda · Guadalaxara · Coimbra · Castello Branco · Torres · Vinaroz · Castellon de la Plana · Cuenca · Leiria · Talavera de la Reyna · Aranjuez · Toledo · Madrid · Cabanberras · Requena · Valencia · Grao · Palma · MAJORCA · Mahon · MINORCA · Port Mahon · Caceres · Truxillo · Consuegra · Tarazona or Mancha · Santarem · Abrantes · Portalegre · Albuquerque · Medellin · Ciudad Real · Albacete · Gandia · Ivica · IVICA · I. Cabrera · LISBON · Villaviciosa · Merida · Almaden · Almagro · Val de Penas · Chinchilla · Almansa · C. de la Nao · Formentera · C. Espichel · Evora · Beja · Villena · Alcoy · Alicante · Elche · C. Sines · Sines · Andujar · Baylen · Caravaca · Orihuela · Murcia · Mittontes · Cordova · Jaen · Baeza · Huescar · Lorca · C. Palos · Carthagena · Seville · Huelva · Palos · Urera · Lucena · Granada · Loja · Baena · C. St. Vincent · Lagos · Faro · Antequera · Almeria · Mojacar · San Lucar · Xeres · Cadiz · I. Leon · C. Trafalgar · Gibraltar · Tarifa · Malaga · C. Gata · C. Carbon · Oran · Santa Maria · C. Spartel · Ceuta · C. Pres Forcas · Melilla · STRAIT OF GIBRALTAR · C. Santa Maria

Bayonne · Tarbes · Pau · Orthes · Foix · Carcassonne · Toulouse · Auch · Montauban · Cahors · Agen · Bergerac · Perigueux · Angouleme · Limoges · Tulle · Aurillac · Mt. Mezen · Mende · Le Puy · Rhodez · Milhau · Alais · Nismes · Montpelier · Arles · Aix · Marseilles · Toulon · Draguignan · Nice · Monaco · Ventimiglia · Bordighera · San Remo · Savona · Genoa · Spezia · Carrara · Gulf of Genoa · Gulf of Lions · Perpignan · Cape Creus · Figueras · Barcelona · Tarragona · Reus · Lerida · Tortosa · Ebro River · Castellon de la Plana · Vinaroz · Valencia · Grao · Gandia · Alicante · Elche · Murcia · Carthagena · Almeria · Mojacar · C. Gata · C. Carbon · Oran · Melilla · C. Pres Forcas · Ceuta · C. Spartel · Tangier · Tetuan · Gibraltar · Malaga · Algeciras · Cadiz · Xeres · San Lucar · Seville · Huelva · Palos · Urera · Lucena · Granada · Loja · Baena · Jaen · Huescar · Lorca · Antequera

is a modern structure of singular magnificence. Its style is purely Grecian, a colonnade of 52 pillars surrounding it, and the walls opposite the spaces between the pillars are niched, and



PARIS FROM NEAR THE PONT ROYAL, LOOKING UP THE SEINE.

On the left are the Tuileries and the Louvre; in the center distance the Ile de la Cité and the Cathedral of Notre Dame; in the distance to the right is the Tower of St. Génévière or the Pantheon. The bridges in receding order are—Pont Royal, Pont des Saints Pères. Pont des Artes (at the end of which is seen the Palace des Beaux Arts), Pont Neuf, and Pont au Change.

filled with colossal statues of the saints. The interior consists of a vast unbroken nave, lined with rich marbles, and lighted from above by four circular apertures in a richly gilded ceiling supported by majestic Corinthian columns. The church of St. Génévière (formerly the Pantheon) stands on the south side of the Seine, near the Jardin des Plantes, and makes a conspicuous appearance with its large dome, 282 feet high. It is nearly in the form of a Greek cross, 188 feet long by 152 feet broad, and is entered by a portico of 22 fluted Corinthian columns, 60 feet in height and 6 in diameter, supporting a triangular pediment of vast dimensions. The most noted of the other churches, but which demand no special description, are those of St. Denis du Sacrement, St. Etienne du Mont, St. Eustache, St. Germain l'Auxerrois, St. Louis, St. Germain des Près, St. Gervais, St. Laurent, St. Marguerite, St. Medard, St. Merri, St. Nicholas du Chardonnet, Notre Dame de Lorette, St. Paul and St. Louis, St. Pierre du Gros Caillon, St. Roch, St. Severus, St. Thomas d'Aquin, du Val de Grâce, St. Vincent de Paule, the Sorbonne, St. Sulpice, etc. These are all Catholic churches. The Protestants have also several, of which the best are those of the Oratoire and the Visitation; and there are likewise two English chapels, an American chapel, a Greek chapel, and two synagogues.



ST. GENEVIEVE OR THE PANTHEON.

53. The Tuileries is the chief imperial residence. It was commenced in 1564 by Catherine de Medici, was enlarged by Henri IV., and was brought nearly to its present form by Louis XIV. The extreme length of its façade is 1,008 feet, and its breadth 108 feet. From its great length and varied outline the edifice is very imposing. The principal front looks west to the Place de la Concorde. The flower-garden, immediately in front, is railed off and intended to be private, but the rest of the garden or park, laid out in alleys and finely planted groves, with sheets of water and numerous groups of statues, is one of the principal holiday resorts of the citizens. East of the Tuileries, and mainly separated from it by Place and Rue de Carrousel, stands the Louvre, the great national repository of works of art. It forms the four sides of a square, and, taken as a whole, ranks as one of the finest pieces of architecture of any age. Not far from the Tuileries and the Louvre stands the Palais Royal, which is entered from the Rue St. Honoré by a Doric arcade and gateway. It forms a court, the north side of which contains the principal building, while the east and west sides consist of wings projecting toward the street, behind which again is the Galerie d'Orleans, a wide and lofty arcade, paved with marble and roofed with glass, and lined on either side with a range of elegant shops. Immediately north is the garden of the Palais Royal, forming a rectangle of 700 by 300 feet, the length north and south. All around the garden are buildings of uniform architecture standing on arcades which form a broad gallery, while the first floor is laid out in shops, which are among the most elegant in the city. The second, formerly one vast gambling den, is now used chiefly for restaurants and coffee-houses. No place is so much frequented as the Palais Royal, and nowhere can a stranger get a readier glimpse of all the phases of Paris life. Much farther to the west, at the corner of the Rue de Faubourg St. Honoré, stands the Elysée Bourbon, which has many associations connected with it, but does not possess much architectural merit. The Luxembourg, on the south side of the Seine, was built by Marie de Medici on the model of the Pitti Palace at Florence. It is a fine structure, remarkable alike for its solidity and the beauty of its proportions; and was the place of meeting of the chamber of peers under the monarchy. The Chamber of Deputies or Corps Legislatif is held in the Palais Bourbon. Its principal front, looking north toward the Seine, is adorned by a magnificent portico of 12 Corinthian columns, supporting a finely wrought pediment, and is approached by a flight of 20 steps. Immediately behind is the chamber itself, a semicircular hall, ornamented with 24 Ionic columns of white marble.

54. The Palais de Justice, where the principal courts are held, is an immense pile of building on the west part of the Ile de la Cité. The principal halls are those of the court of cassation and the court of assizes. The Hotel de Ville, in the Place de Grève, forms an immense quadrangle with four splendid façades. The ornaments of the principal front are richly sculptured. Over the central porch is a brazen equestrian statue of Henri IV., and in the wall a series of niches filled with statues of the most distinguished Parisian magistrates. The interior court is surrounded by an arcade and portico, with Ionic columns, and the Grande Salle, occupying the whole length of the central portion of the building, is very magnificent. The Hôtel de la Marine, forming the northeast side of the Place de la Concorde, is a beautiful structure, and was formerly the place in which the crown jewels were deposited. The Hôtel des Monnaies (mint) fronts on the Quai Conté, on the south side of the Seine, and contains an immense collection of coins and medals. The Hôtel des Postes (post-office), to the east of the Palais Royal, has a handsome front, but the whole building, though well arranged, has little architectural merit. The Bourse, in the Rue Vivienne, is a modern structure, and is in the form of a parallelogram, 212 by 126 feet, surrounded by a range of 66 columns, supporting an entablature and masked attic, and forming a covered gallery. The Salle de la Bourse, where business is transacted, is a large apartment of the Doric style, surrounded by arcades. The Tribunal de Commerce and other courts more immediately connected with trade and commerce are located in this building. The Hôtel des Finances is an immense building in the Rue de Rivoli. The Hôtel des Archives is more interesting from the value of its records, extending over a period of 1,200 years, than remarkable for its architecture. In connection with the records of the country may be mentioned its printing establishment (Imprimerie Imperiale), occupying the buildings of the Palais Cardinal. It is one of the largest and best regulated establishments of the kind in Europe, and possesses so complete an assortment of types that it has printed the Lord's Prayer in 152 languages.

55. At the head of museums, libraries, etc., stands the magnificent collection of the Louvre. It forms one of the chief attractions of the capital, and consists of various galleries, containing innumerable pictures by the artists of all nations; curious and valuable cups, vases, porcelain, jewelry, cameos, agates, and other remarkable articles of vertù belonging chiefly to the middle ages; copies of some of Raphael's finest frescoes in the Vatican; Etruscan and Grecian vases, and other articles obtained from Herculaneum and Pompeii; Egyptian antiquities, in which it is exceedingly rich; the Standish collection, so called from an Englishman of that name who bequeathed it to Louis Philippe, which contains many valuable pictures and a library of rare books; collections of models of ships, Indian arms and ornaments, etc.; antiquities of every description, and everything that nature and art have produced in ancient and modern times. The Musée du Luxembourg, contained in the palace of the same name, is appropriated to the finest works of living French artists, purchased by government. The Musée d'Histoire Naturelle, together with the Jardin des Plantes, in which it stands, is at once one of the most attractive and instructive places in Paris. The museum is rich in the collections of Cuvier and other distinguished names, and possesses, besides excellent specimens in all the branches of natural science, a good menagerie, etc. The Musée d'Artillerie occupies five galleries—one containing suits of ancient armor, and the other four—arms, instruments, machines, and models of those used by the artillery service. The Conservatoire des Artes et Metiers, occupying the extensive buildings which formerly belonged to the Abbey of St. Martin des Champs, contains a most valuable and interesting collection of machines, models, drawings, etc., relating to almost all branches of industry.

56. The most important library is the Bibliothèque Imperiale, occupying a vast building almost devoid of ornament, but containing one of the largest and most valuable collections in existence—the books and pamphlets amounting in number to about 1,000,000; the manuscripts, many of them of extreme rarity and interest, to 80,000, and the maps and plans to 300,000. In addition to these there is a collection of engravings contained in 80,000 volumes or portfolios, with 1,400,000 plates; a gallery of ancient sculpture, in which the most remarkable object is the Zodiac of Denderah; and a cabinet of antiquities, consisting chiefly of coins and medals to the number of 100,000, many of them rare and some unique. The other more important libraries are those of the Arsenal, with 200,000 volumes and 6,300 manuscripts; of St. Génévière, with 250,000 volumes and 3,000 manuscripts; of Mazarine, at the Institute, with 200,000 volumes and 3,700 manuscripts; of La Ville, with 55,000 volumes; of the Conseil de l'Etat, with 80,000 volumes; of the Ecôle de Médecine, with 30,000 volumes; of the Musée d'Histoire Naturelle, with 30,000 volumes; and libraries of greater or less extent attached to almost all the public institutions, and government, judicial, and municipal offices.

57. The University of Paris, long one of the most celebrated in Europe, was suppressed at the Revolution, and an entirely new system of public education adopted. At the head of this system was placed the University of France, which, properly speaking, is only a board of education, consisting of a council of nine members, presided over by the minister of public instruction, and having under it 92 inspectors-general of studies. The most extensive school in Paris is the Academy, consisting of five faculties—science, belles-lettres, theology, law, and medicine. After ranks the College Imperiale de France; the college attached to the Musée d'Histoire Naturelle; the colleges of Louis le Grand, Henri IV., Bourbon, St. Louis, and Charlemagne; the Ecôle Polytechnique; the Ecôle Centrale des Artes et Fabriques; the Ecôle Normale, and several écôles normales elementaires; the Ecôle des Ponts et Chaussées; the Ecôle des Mines; the Ecôle des Chartes; the Ecôle des Langues Orientales Vivantes; the Ecôle de Pharmacie; the Ecôle Gratuite de Dessin, de Mathematique et de Sculpture d'Ornament; the Ecôle Speciale et Gratuite de Dessin pour les Jeunes Personnes; the Palais et Ecôle des Beaux Arts; the Ecôle Veterinaire, at Alfort, in the vicinity; the Conservatoire de Musique et de Declamation, and numerous primary schools, and inferior and infant schools, etc. All these have full staffs of professors and teachers, and are the sources of the mental

alimentation of the Empire. The professional schools rank high, and are connected intimately with the great men who have raised French literature to its present enviable standard and purity.

58. At the head of literary and scientific societies stands the Institute de France. It consists of 224 ordinary members (all of whom receive annually about $300), 42 free academicians without salary, 33 associates, and 220 correspondents; and is divided into five sections or academies—the Academie Française, specially devoted to the French language; the Academie des Inscriptions et Belles-Lettres, for general literature, the learned languages, and antiquities; the Academie des Sciences, subdivided into 11 sections, embracing the different branches of physics, mathematics, natural history, medicine, rural economy, etc.; the Academie des Beaux Arts, for painting, sculpture, architecture, engraving, and music; and the Academie des Sciences, Morales et Politiques, for history, moral science, jurisprudence, political economy, and statistics. The Institute overshadows most of the other societies, many of which, however, have distinguished themselves, and are well known under the names of the Antiquarian, Philomathic, Natural History, Geographical, Statistical, Philotechnic, Asiatic, Anatomical, Medical, Agricultural, etc., societies.



PLACE DE LA CONCORDE, PARIS.

59. The civil hospitals of Paris are divided into three great classes—general hospitals, special hospitals, and hospices or alms-houses. The general hospitals are—the Hôtel Dieu, the most ancient, situate partly on the south side of the Ile de la Cité, and partly on the south side of the river, here crossed by a covered bridge, and forming a very extensive and admirably managed infirmary, which receives about 11,000 patients annually; the Hôpital de la Pitié, with 600 beds and an average of 10,000 patients; the Hôpital de la Charité, with 530 beds and 8,000 patients; and the hospitals Neckar, Cochin, and Beaujon. The chief special hospitals are St. Louis, for cutaneous diseases; du Midi and de Lourcine, for syphilitic complaints; de la Maternite; des Enfans Malades; and des Cliniques. The hospices are—the Bicêtre, for old men, and the Salpetrière, for old women: two similar Hospices des Incurables; and the Hospice des Enfans Trouvés, a large establishment, the receptacle for foundling children.

60. In addition to the above are numerous other establishments of a benevolent nature. The most celebrated is the Hôtel des Invalids, or asylum for old soldiers, a magnificent establishment capable of receiving 5,000 pensioners: two asylums for the blind, a lunatic asylum (Maison Royal de Charenton), a deaf and dumb institute, and a great variety of societies, both public and private, for distributing food and clothing, and reclaiming those who have gone astray.

61. The prisons are nine in number. The principal are—La Force, containing 1,200 separate cells; St. Pélagie, partly a political prison and partly a prison for convicts whose punishments are of short duration; St. Lazare, a general female prison; the Dépôt des Condamnès, for prisoners condemned to the hulks or to death; and the Maison Centrale d'Education Correctionnelle. The prisons to which the most mournful interest attaches are the Palais du Temple, from which Louis XVI. was led forth to the scaffold; the Conciergerie, from which Marie Antoinette was led forth to the same fate; and the Abbaye, the most gloomy of all the Parisian prisons. The Bastile is now among the things that were.

62. Several of the places of resort have already been incidentally mentioned, and the only one calling for special notice is the most celebrated of all—the Champs Elysées. It stretches west from the Place de la Concorde to the Barrière de l'Etoile for about a mile and a quarter, gradually widening out from 373 to 700 yards. It consists of a central road lined with trees, and with wide walks and open spaces on each side, presenting, particularly on holidays, one of the gayest and liveliest scenes that can well be imagined. The public fêtes all take place here.

63. The theaters of Paris and its immediate suburbs afford accommodation for 30,000 persons, and the passion for such amusement is so strong and general that the attendance is usually full. The most important are—the Academie Nationale de Musique or French Opera, capable of containing 2,000 persons, the Italian Opera, the Opera Comique, the Théâtre Française, the Odeon, the Théâtre de la Gaieté, for vaudevilles and melodramas; the Théâtre des Folies Dramatiques, the Théâtre de Vaudeville, the Théâtre des Variétés, the Théâtre du Palais Royal, the Théâtre Porte St. Martin, the Théâtre de l'Ambigu Comique, the Théâtre du Pantheon, and the Cirque Olympique. Numerous other places of amusement are always open. A place of resort, though certainly not of amusement, furnishing one of the most interesting and impressive sights of the capital, is the celebrated cemetery of Père-la-Chaise, the last resting-place of high and low.

64. The most important of the Paris manufactures are articles of jewelry and precious metals; ebony and ivory trinkets, fine hardware, paper-hangings, saddlery, and other articles in leather; cabinet-work, carriages, various articles of dress, silk and woolen tissues, particularly shawls and carpets; lace, embroidery, artificial flowers, and combs; machinery, mathematical and optical instruments; types, books, and engravings; refined sugar, chemicals, etc. The annual value of the manufactures of the city is estimated at about $320,000,000. Besides the above, there are two very important manufactures, both under the superintendence of the government—that known by the name of Gobelins, celebrated for its tapestry and carpets, made, however, not for sale, but for the supply of the palaces and for presents; and that of tobacco, which is held as a monopoly, and is carried on in a vast establishment on the south side of the Seine, producing about a fifth of all the snuff used in the Empire.

65. The trade of such a city is immense; but with foreign countries its commerce is insignificant—the exports having been in 1850 only to the value of $10,652,107. The business or pleasure of the inhabitants demands the employment of 27,938 public carriages, which on an average are used by 200,054 riders daily. Externally the means of communication are ample by river, canals, and railroads. Railroads now enter Paris from Belgium, Germany, Switzerland, and Piedmont, passing the French frontiers severally at Tourcoing, Valenciennes, Sarrebouck, Strasbourg, Bâle, Geneva, etc.; and from the principal ports on the English Channel, the Atlantic, and Mediterranean—Dunquerque, Calais, Boulogne, Dieppe, Fecamp, La Havre, Caen; Nantes, Bordeaux, Bayonne, etc.; Cette and Marseilles—passing through the chief towns of the interior, and connecting the capital with all parts of the Empire. Other and independent lines or branches of the above, either completed or in progress, reach Paris from every direction, making it the chief railroad center of western Europe. These are the work of the last few years.

66. The inhabitants of Paris have long considered themselves at the head of civilization; and if such an eminence can be attained, the palm certainly belongs to them. In matters of dress and fashion the lead is universally conceded to them, and none succeed better, not only in practicing the agreeable arts of life, but even in observing the outward decencies of society. Beneath this pleasing surface, however, there is much that is offensive to morality. Nowhere in the world is dissoluteness more rife, nor the substantial virtues more rare. Matrimonial infidelity exists to a fearful extent, and the abominations of socialism are proclaimed in the fact that every third child born is illegitimate. The exact number of the births for 1851 was —legitimate 21,689, and illegitimate 10,635. The chief virtue in which other nations might profitably imitate the Parisians is temperance.

67. The origin of Paris is involved in obscurity; but it appears that a wandering tribe having settled on the Ile de la Cité, to which they had fled for safety, gave to this natural stronghold the name of Lutetia (Celtic, *louton-hezi*, dwelling of the waters). Julius Cæsar found it inhabited by the Parisii, and even at that time it was a place of importance. Under the Roman emperors its limits were greatly extended; and in 508 it became the capital of Clovis. The establishment of the University in 1200 gave to it additional importance. Under Philip Augustus it was surrounded by walls; the inner or city wall was built nearly as it now exists in 1786. The new fortifications were commenced in 1840 and finished in 1848.

68. In the vicinity of Paris, and in many instances inclosed within the outer fortifications, there are several populous and important towns and villages, and others to which history has given an absorbing interest. Within the inclosure are Belleville, Vaugirard, Auteuil, Passy, etc. These are suburbs of the capital, and are distinguished for their villas, gardens, and beautiful surroundings.

69. St. Denis, 5½ miles north from the center of the city, is chiefly celebrated for its church, which, from the seventh century, was the principal burial-place of the kings of France. This is a noble Gothic edifice 415½ feet in length and 106½ feet in breadth, with two towers and a spire. Its ancient abbey is now used as a house of instruction, founded by Napoleon the Great, for the daughters of the members of the Legion of Honor.

70. Vincennes, 4 miles east of the Barrière du Trône, is a village of great antiquity, and its castle, erected in 1339 in the midst of a forest, was used as a royal residence till the time of Louis XV. It was afterward made a state prison. It contains a fine armory, depôt of artillery, and the tomb of the Duke d'Enghien, who was shot at the outside of the fortress, by order of Napoleon I., in 1804. The wood of Vincennes is a favorite holiday resort of the Parisians.

71. Neuilly and Boulogne, to the west of the city, are remarkable alike for their beautiful scenery and historical interest. The royal chateau of Neuilly, built in the reign of Louis XV., was the favorite residence of Louis Philippe, but was destroyed during the Revolution of 1848. The bridge over the Seine at Neuilly is one of the most magnificent in France. The park extends some distance along the right bank of the river, and into the wooded islets that divide the stream. The Bois de Boulogne is the finest promenade in the environs of Paris. It formerly contained the Abbey of Long Champs, a celebrated place of pilgrimage.

72. St. Cloud, on the Seine, opposite Boulogne, is noted for its beautiful prospects, and the splendid gardens and park attached to the royal palace. The fine chateau of St. Cloud, originally the property of the dukes of Orleans, was long the favorite summer residence of the kings of France. It was here that Bonaparte broke up the Assembly of Five Hundred,

and caused himself to be proclaimed First Consul; and here, in July, 1830, Charles X. signed the ordonnances which cost him his throne.

73. Versailles, 10 miles southwest from Paris, and with which it communicates by two lines of railroad, is a remarkably handsome town, and is chiefly noted for its magnificent palace, built by Louis XIV., and which, from 1672 to 1790, was the usual residence of the kings of France. This palace was restored during the reign of Louis Philippe, and is now used as an historical museum. The immense galleries, freshly decorated, contain a series of paintings and statues arranged in chronological order; and connected with the establishment are a superbly decorated chapel and theater, an orangery, spacious flower-gardens, and a park, in which are numerous statues and splendid fountains; and at the extremity of the park are two palaces, called the Great and Little Trianon. Many treaties have been signed here, by one of which, in 1783, England recognized the independence of the United States; and here, on the 20th June, 1789, the representatives of the communes of France constituted the National Assembly. From 1790 to 1837 Versailles was nearly deserted, but since the opening of the museum in the latter year, it has regained much of its ancient importance.

74. St. Germain-en-Laye, about 7 miles north of Versailles, and 10 miles west-northwest of Paris, is pleasantly situated on the border of the forest of St. Germain, one of the largest in France. Its magnificent chateau, founded by Charles V. and embellished by his successors, is now used as a barracks and military prison. It was formerly a hunting-lodge of the French kings. Rambouillet, 17 miles southwest of Versailles, and on the railroad from Paris to Chartres, has a fine chateau, formerly a royal residence. Here also is the Model Farm established by Louis XVI. Fontainebleau, 35 miles south-southeast on the railroad from Paris to Lyons, is situated in the middle of one of the finest forests of France. It is celebrated for its ancient and vast palace, surrounded by magnificent gardens and parks, and long the favorite residence of the French sovereigns. Pope Pius VII. was detained here for 18 months, and here Napoleon signed his first abdication in 1814.

75. Rouen, on the right bank of the Seine, 75 miles above its mouth, is a great center of manufacturing industry. It was the ancient capital of Normandy, and possesses great historical interest. Havre (properly La Havre de Grâce), at the mouth of the Seine, constitutes the port of Paris, and is a place of great trade. It was a saying of the great Napoleon that Paris, Rouen, and Havre formed together one city, of which the Seine was the principal street. Havre is strongly fortified, both on the sea and land sides, and contains a citadel and naval arsenal with a marine school.

76. Lyons, the second city in France, is situated at the confluence of the Rhone and its tributary the Saône. It contains the finest provincial library in France. It is distinguished as the chief seat of the manufactures of silk, velvets, satins, and other varieties of the same fabrics. There are also considerable manufactories of cotton, woolen, and leathern goods, gold lace, jewelry, etc. Lyons is a place of great antiquity. It was founded by the pro-consul Munatius Plancus, B. C. 43, and under the name of Lugdunum became the capital of Celtic Gaul or the Lyonnaise. Destroyed by fire it was rebuilt by Nero. Severus ruined it A. D. 197, but it was restored by Constantine. It was the residence of the kings of Burgundy till the end of the fifth century; and was ravaged by the Saracens in the eighth century. It was subsequently governed by its archbishops, feudatories of the German Empire, and was finally with its territories annexed to France in 1312. In 1793 it was taken by the army of the Convention after a two months' siege, and was the scene of the most horrid cruelties. Germanicus was born here; also the emperors Claudius, Marcus Aurelius, and Caracalla.



LYONS.

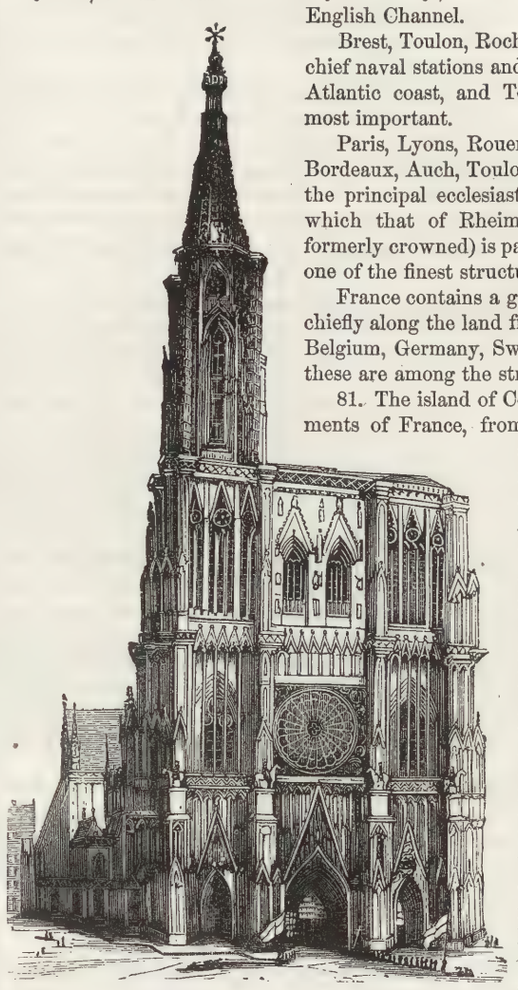
77. Marseilles, situated on the east side of a large open bay on the shores of the Mediterranean, is the principal maritime city of the Empire, and one of the chief stations of its foreign trade. It has a magnificent quay, and the streets in the quarter adjacent to the sea are straight and wide, with fine buildings and extensive warehouses. Marseilles is of very early origin, having been founded by a colony of Greeks 539 years before Christ.

78. Bordeaux, on the left bank of the Garonne, is the great emporium of the wine trade of France, and the chief seat of the foreign commerce of the country on the Atlantic coast, as Marseilles is on the Mediterranean. It has also a considerable share in the cod and whale fisheries—the former pursued on the banks of Newfoundland. Besides its foreign trade, Bordeaux has also numerous manufactures, of which the most important are those of vinegar, nitrous acid, refined sugar, spirits, cotton yarn, paper, porcelain, goods, hats, glass, floorcloths, etc. The Garonne is crossed at Bordeaux by a magnificent bridge of seventeen arches, nearly 1,600 feet in length. Below the town the river forms a broad estuary called the Gironde.

79. Strasbourg, near the left bank of the Rhine, is an ancient and strongly fortified city, which formerly belonged to Germany. It stands in a fertile plain and has manufactures of various kinds, but is chiefly celebrated for its cathedral, a magnificent Gothic structure, with a clock of peculiar and ingenious construction representing various astronomical movements.

80. The principal manufacturing towns have heretofore been mentioned; and the population of all is given in the general table (48). Want of space forbids their further notice; and hence the few lines further allotted to this article must be devoted to general remarks.

The principal ports for foreign commerce other than those already noticed are—Cette, at the outlet of the Canal du Midi, on the Mediterranean; Nantes, Rochelle, L'Orient, and Bayonne, on the coast of the Bay of Biscay; and Boulogne, Dieppe, and St. Malo, on the English Channel.



CATHEDRAL AT STRASBOURG.

Brest, Toulon, Rochefort, Cherbourg, and L'Orient, are the chief naval stations and dock-yards. Of these, Brest, on the Atlantic coast, and Toulon, on the Mediterranean, are the most important.

Paris, Lyons, Rouen, Sens, Rheims, Tours, Bourges, Albi, Bordeaux, Auch, Toulouse, Aix, Strasbourg, and Avignon are the principal ecclesiastical towns, and contain cathedrals, of which that of Rheims (where the kings of France were formerly crowned) is particularly celebrated, and is considered one of the finest structures in Europe.

France contains a great number of fortified towns, situated chiefly along the land frontiers of the country on the sides of Belgium, Germany, Switzerland, Italy, and Spain. Some of these are among the strongest fortresses in the world.

81. The island of Corsica, which forms one of the departments of France, from its position possesses many natural advantages. The forests abound in the finest timber; the orange, citron, pomegranate, vine, olive, mulberry, and other fruits all flourish; chestnut and walnut trees are numerous, and vast quantities of honey are produced. The island abounds in marble and building stone, and the finest quality of iron is mined. But nearly half the surface is left waste, and the quantity of corn grown is not enough for the inhabitants. Cattle constitute the chief wealth. The inhabitants resemble the Italians, and speak a dialect of the Italian language. There are few manufactures, and the exports are confined to small quantities of timber, wines, dried fruits, olive oil, silk, leather, and fish. Bastia, on the east coast, is the largest town, and the principal seat of trade; but Ajaccio, on the west side of the island, is the capital of the department; and it is interesting as the birth-place of Napoleon Bonaparte. There are also several good harbors on other parts of the coast.

82. France has colonies and dependencies in America, Africa, Asia, and Oceanica. In Asia the French possessions are Pondicherry, Karikal, Thanaon, Mahé, and Chandernagore, with a total population of 197,863 souls; in Africa—Algeria, Senegal and dependencies, Goree and dependencies, the island of Re-Union, Sainte Marie, Mayotte, Nossi, Bé, etc., together having 2,921,847 inhabitants; in Oceanica, exclusive of the protectorate over Tahiti—the Marquesas Islands and New Caledonia, containing about 80,000 inhabitants; and in America—the islands of Martinique and Guadaloupe in the West Indies, Guayana in South America, and St. Pierre and Miquelon in North America, in which the population is stated to have been in 1851 276,362 souls.

83. In ancient times France formed the greater part of Transalpine Gaul. It was subjugated by Cæsar in the year 50 B. C., and formed 17 Roman provinces. In the fifth century the Franks established themselves in the north, the Burgundians in the east, and the Visigoths in the south. In the following century the Franks extended their dominions nearly over the whole of Gaul; but Brittany, Gascony, and Languedoc preserved their independence. The power of the Franks continued to increase, and under Charlemagne, at the end of the eighth century, their empire extended in Germany north to the Elbe and southeast to the Theiss; in Italy to the Volturno, and in Spain to the Ebro.

84. This empire was partitioned in the middle of the ninth century, when Germany detached itself from Gaul, which last was divided into two parts, namely—the kingdom of France, comprised between the ocean, the Pyrenees, the Mediterranean, and the Rhone, Saône, Meuse, and Scheldt, and—Lotharingia, a long strip of territory between the Rhine and the Alps on the one side and the rivers above named on the other; to this Italy was added. This state was soon again divided into the kingdom of Italy, Lorraine, and the kingdom of Provence or Burgundy, called also the kingdom of Arles. These three states were successively united nominally to the Germanic Empire. The kingdom of France was also parceled out into feudal duchies and numerous seigneuries, so that the king had little more than an empty title before the family of Hugh Capet, who ascended the throne in 987, succeeded in uniting round their small territory the different states of France.

85. This process of concentration progressed under succeeding reigns, and was completed at the Revolution of 1798, which subjected to equal laws the 33 governments and provinces of which the monarchy was then composed, and divided them into 83 departments. Avignon and Venassin, which had been in the possession of the Popes for five centuries, were soon after united to France.

86. The wars of the Revolution rapidly increased the territory of the republic. Belgium, all the countries of Germany situated to the left of the Rhine, Savoy, and Nice were conquered and formed into 16 new departments. This state of matters, confirmed by the treaty of Luneville in 1801, and by that of Amiens in 1802, gave to France its natural limits—those of ancient Transalpine Gaul. But the conquests of Napoleon overstepped these bounds; his empire extended in Italy to Garigliano; in Germany to the mouths of the Elbe; in Illyria to

the Save and Cattaro, and included Holland. The secondary states of Germany, Switzerland, and the kingdoms of Naples and Spain became his vassals rather than his allies. This gigantic extension of empire raised the whole of Europe against France, which by the treaties of 1814 and 1815 was again confined to its former limits, and the emperor himself was consigned to a small island in the South Atlantic.

87. The most remarkable events in the history of France since the downfall of Napoleon are—the restoration of the Bourbons in 1815; the abdication of Charles X., and the election of Louis Philippe as king of the French in 1830; the revolution and his abdication, and the proclamation of the republic in 1848; the election of Prince Charles Louis Napoleon Bonaparte as president in 1849; the plebiscite of 1851, and the promulgation of the constitution authorized by that act; the plebiscite of 1852, and the subsequent assumption of the imperial title; and the cordial co-operation of France and England in the protection of the Ottoman Empire against the aggressions of Russia.

[*Weights, Measures, and Moneys.*—These are arranged by the French on the strictly decimal system established in 1795. It is founded on the measurement of the quadrant of the meridian; the *metre* or the ten-millionth part of which was assumed as the unit of length, all other lineal measures being multiples or divisions of it in decimal proportion.

In order to express the decimal proportion the following prefixes to the units of weights and measures have been adopted, in which the terms for multiplying are Greek, and those for dividing, Latin

For multipliers the word *deca* prefixed to the unit means ten times, as decametre = 10 metres; *hecto* prefixed means 100 times, as hectometre = 100 metres; *kilo* means 1,000 times, as kilometre = 1,000 metres, and *myria* means 10,000 times, as myriametre = 10,000 metres.

On the contrary, for divisors, the word *deci* prefixed means a 10th part, as decimetre = 10th of a metre; *centi* means a 100th part, as centimetre = 100th of a metre, and *milli* means a 1,000th part, as millimetre = 1,000th of a metre.

The units of the various weights and measures are subjoined, with their equivalents in United States values.

Lineal measure.....Metre = 39.37 inches; kilometre = 1,093.64 yards
Square measure ....Are (100 square metres) = 119.6 square yards; hectare = 2.47 acres.
Capacity measure...Litre (cubic decimetre) = 61.028 cubic inches.
Solid measure .....Stere (cubic metre) = 35.3174 cubic feet.
Measure of weight..(= 1 cubic centimetre of water at its maximum of density) = 15.432 Troy grains; kilogramme = 2.204 lbs. avoirdupois.

The unit of money is the franc of 100 centimes: from a kilogramme of silver, nine-tenths fine, are made 200 francs, and hence each piece weighs 5 grammes or 77.16 Troy grains. Accounts are kept exclusively in francs and centimes.

Other measures frequently used are the Paris foot (pied du Roi) = 12.79 inches; the toise = 6.39 feet; and the metrical quintal = 100 kilogrammes = 220.4 lbs. avoirdupois.]

STATE OF ANDORRE.

1. Andorre or Andorra is a small independent neutral state comprised in three mountain valleys in the north of Catalonia, in Spain, on the south side of the Pyrenees, and south of the department of Ariege, in France. It extends north and south about 30 miles, and somewhat less east and west; and has an area of 191 square miles.

2. This district, which is among the wildest in the Pyrenees, is watered by the Embalira, Ordino, and Os, affluents of the Segre, a tributary to the Ebro. It comprises very little arable land, but extensive pastures; and the mountain sides are well clothed with timber, which is floated down the Segre and Ebro to Tortosa. Iron is abundant, and at Caldes there are thermal springs.

3. Andorré is governed by its own laws, and has a legislature of 24 representatives elected by the six communes into which the State is divided. The executive is vested in a syndic or procureur-general, who holds his office for life, and who is also president of the legislature. The laws are administered by two viziers or judges, one chosen by the French emperor, and the other by the bishop of Urgel, and both of whom act on occasion as military commanders. All the male inhabitants are liable to military duty and provided with fire-arms, each parish having its company. The whole people are adherents of the Roman Catholic Church.

4. The Andorrese are extremely simple and austere in their manners, and ignorant of and indifferent to the luxuries of cities; their wealth consisting either of cattle or sheep or a share in the iron mines, and very few being owners of any land beyond a small plot adjacent to their cottages. Their clothing too is very simple and rough. Each family has a chief, determined by primogeniture; and none unless married are allowed to share in the management of public affairs. Education is at a low ebb; but in each parish there is a school, in which children are taught gratuitously. The common language is a dialect of the Catalan. In person the Andorrese are strong and well proportioned, almost unacquainted with disease and nearly equally so with crime. The total population of the State is about 8,000.

5. The general industry is employed in cattle and sheep raising and other branches of farming. Iron is wrought in several mines, its manufacture into tools and implements being also conducted to some extent; but this and every other branch of industry is carried on in the rudest and most primitive manner. Commerce, which is wholly unrestricted, is confined to the importation of a few necessary articles, and to the export of iron and timber.

6. Andorra la Vieja, the capital, lies at the confluence of the torrents Embalira and Ordino, 11 miles north of Urgel, in Spain, and 36 miles of Foix, in France. It has about 2,000 inhabitants. Canillo is a village noted for its iron mines.

7. This remarkable little State owes its independence to Charlemagne, who gave the people the privilege of governing themselves by their own laws; and these rights were further confirmed by his son Louis-le-Debonnaire, who nevertheless ceded the spiritual superintendence to the bishop of Urgel. These rights have ever since been respected by the adjoining nations.

KINGDOM OF SPAIN.

1. The Spanish monarchy occupies the far greater portion of the southwestern peninsula of Europe, and includes the Balearic and also the Canary islands. Exclusive of the islands, it lies between latitudes 36° 45′ and 43° 48 north, and longitudes 9° 16′ west and 3° 20′ east from Greenwich, and is bounded on the northeast by the chain of the Pyrenees, which separates it from France; on the southeast and south by the Mediterranean Sea and Strait of Gibraltar, by which it is separated from Africa; on the west, by Portugal and the Atlantic Ocean, and on the northwest by the Bay of Biscay.



CHURCH AND TOWER OF SANTA CRUZ, MADRID.

2. Measured diagonally, the greatest length of the country, from Cape Creux in the northeast, to Cadiz in the southwest, is 656 miles, and the greatest breadth, from Cape Ortegal in the northwest, to Cape Palos in the southeast, is 583 miles; but measured due north and south and due east and west, the greatest length, on the meridian of 5° 45′ west, from Cape Penas to Tarifa, is 540 miles, and the greatest breadth, on the parallel of 42° 20′ north, from Cape Creux to Cape Hombre, 620 miles. The area is estimated at 177,735 square miles, or including the islands at 182,713 square miles.

3. The surface of Spain is greatly diversified. The interior forms a vast table-land, which, in the plateau of Castile, has a mean elevation of 2,300 feet. This plateau occupies about one half of the superficies of the Kingdom, and is nearly surrounded by mountains. The table-land itself is not only very rugged in many parts, but is traversed through its whole breadth, east and west, by two mountain ranges, the loftier of which may be considered as dividing it into two distinct portions: a northern, comprising the kingdoms of Old Castile and Leon, and a southern, comprehending those of New Castile and Estramadura.

4. There are in all five principal chains of mountains called sierras which traverse the peninsula from east to west. These are—the magnificent chain of the Pyrenees, extending from Cape Creux on the east to the Bay of Biscay on the west, culminating in Maladetta, 11,168 feet, and their western continuation, the Asturian and Cantabrian mountains, some of which rise to 10,000 feet;—the chain which separates the basins of the Douro and Tagus, namely the sierras Guadarama, Gredos, and Gata;—the mountains of Toledo, comprising the Sierra Guadaloupe and Sierra San Mames, between the Tagus and Guadiana;—the Sierra Morena, separating the basins of the Guadiana and Guadalquiver, and connected westward with the Sierra Monchique, in Portugal; and—the Sierra Nevada, extending from Cartagena to Cadiz, and containing the Cerro Mulhacen, the highest point of the Peninsula, being 11,605 feet, and the Pic de Veleta 11,387 feet in elevation.

5. A number of the rivers of Spain pursue courses of several hundreds of miles, and drain large tracts of country; but in general rising in the table-land, where rain is neither frequent nor copious, their supply of water is comparatively small, and their navigable importance limited. Their basins lie between the mountain ranges, and hence all the large rivers flow through valleys, opening only on the east or west—into the Mediterranean or the Atlantic. The most important of the former are the Ebro, Segura, Jucar, and Guadalaviar; and of the latter the Douro and Tagus (which have the lower and more valuable part of their courses in Portugal), the Minho and Guadiana (also partly shared by Portugal), and the Guadalquiver. Notwithstanding the mountainous character of the country, Spain does not possess a single mountain lake deserving of notice; and its only expanses of still water are the lagoons which line parts of its south and west coasts, which are not only devoid of beauty but often poison the air with pestilential vapors.

6. Almost all the mountain ranges have a nucleus of granite, overlain by crystalline schists. This is particularly the case in the Pyrenees, and the sierras Morena and Nevada. The mountains of Asturias, however, form an exception; and though evidently a continuation of the Pyrenees differ from them remarkably in geological structure, and consist almost entirely of carboniferous limestone and sandstone. Secondary rocks, still higher in the series, consist-

ing of chalk and the accompanying strata, often overlie those of the carboniferous limestone, and have their largest development in districts which border on the east coast. They also form a great part of the ridges which intervene between the plain of La Mancha and the Mediterranean. Tertiary formations are found partly on the higher table-land in Old Castile, where they consist chiefly of marls and gypsum, and partly on the plains of Valencia, Alicante, Murcia, Cartagena, Aguilar, and Granada. They also fill several valleys, among others those of the Segura, Lower Ebro, and Guadalquiver.

7. The mineral resources of the country are very valuable and include the precious metals, quicksilver, copper, lead, zinc, iron, etc. Gold was at one time found in considerable quantities in Asturias and Galicia, though no mine is now worked; silver is obtained in numerous quarters, particularly in the Alpujarros, and the sierras of Lujar and Gador, in all of which the lead is highly argentiferous; quicksilver particularly at Almaden, where the mines are among the richest in the world; copper in Aragon; iron in almost every quarter, and more especially in the Basque provinces, where it is worked to a considerable extent; zinc in more limited quantities; coal in several places, particularly in Asturias and the Sierra Morena; calamine, cobalt, and bismuth in La Mancha, Aragon, and Granada, and antimony, tin, graphite, alum, sulphur, and saltpeter. Salt is very partially worked in mines, but great quantities are manufactured from the lagoons. Several quarries yield excellent marble, alabaster, and jasper; and many precious stones, as rubies, topazes, amethysts, and garnets, are found.

8. The climate of Spain, owing to the physical conformation of the surface, varies greatly in different localities. It is warm on the coasts, but the table-lands are exposed to great extremes. Many of the mountains rise above the snow-line, the limit of which in the Pyrenees is 8,952 feet, and in the Nevada 11,190 feet. At Madrid, which is situated on the table-land, the mean annual temperature is about 60° Fahrenheit, varying in the months from 89° to 40°. On the table-land in summer the sky is generally clear and cloudless, and rain seldom falls, but in winter it both rains and snows frequently. The annual fall of rain on the Sierra Nevada and on the northwest coasts is from 25 to 35 inches, while on the table-land it is only 10 inches, and the capital is often exposed to severe drouth. In the northwest a piercing wind called the "gallego" often blows, and in winter the cold is severe. In the southeast a kind of perpetual spring prevails. In the south and southwest the climate is almost African, and a wind called the "solano," which withers vegetation, enfeebles the animal frame, and spreads epidemic diseases, often blows for two weeks in succession. In the northwest the climate is mild but variable; the summer, however, is hot, and drouths of nearly six months' duration are not unfrequent. In the east the climate resembles that of Asia Minor and Syria. Snow is confined chiefly to the more mountainous districts. Storms are not frequent, but shocks of earthquakes are often felt, and many attended with fearful disasters are on record.

9. Few of the mountains are so high as to be beyond the limits of forest vegetation; yet both the mountains and many tracts of the table-land are in general very scantily supplied with trees. The finest forests are on the western offshoots of the Pyrenees and in the mountains of Asturias, from which the oaks that formerly supplied the docks of Ferrol were obtained. The more remarkable trees are the chestnut and several varieties of oak, more particularly the "ballota," the acorns of which are edible, the "suber" or cork-tree, and the "coccifera," from which a common dye resembling cochineal is obtained. Orchard and fine fruit trees are extremely abundant, and include the apple, pear, cherry, plum, peach, apricot, almond, date, fig, orange, citron, and pomegranate; and in the lower districts of the south the anana, banana, aloe, and cactus. The culture of the vine is general, and great quantities of wine are made both for home consumption and export. The demand for the latter is chiefly confined to sherry and the sweet wines of Malaga and Alicante. A considerable portion of the grapes grown are dried, and furnish one of the principal exports from the port of Malaga. Pistachio nuts, walnuts, and chestnuts grow in such abundance as to form important articles of trade, and in the warmer districts the olive, sugar-cane, and cotton-plant are partially cultivated.

10. The extent of land under cultivation is somewhat limited. Much of the higher part of the central table-land presents a very sterile appearance, having a covering of heath or scanty pasture; and even extensive tracts, which might be advantageously cultivated, are left almost in a state of nature, to be roamed over by cattle, sheep, goats, and swine. The finest agricultural districts are Valencia, Catalonia, Murcia, and some of the northern provinces. But on the whole the system of agriculture is very defective, though greatly improved, and the amount of produce is far less than under the circumstances might be obtained. The more important crops are wheat, rice, maize, barley, and legumes. Hemp and flax are extensively grown in the east, and the mulberry in the south and east. Saffron and other dye-plants thrive chiefly in the interior; while the liquorice-plant is cultivated chiefly near Seville and at the mouth of the Ebro.

11. The only large animals in a wild state are the wolf, common in all mountainous districts, and the bear and chamois, found chiefly in the Pyrenees. In Biscay the marten is frequently met with, and lynxes, foxes, wild-cats, weasels, etc., are numerous in many quarters. The chameleon is found in the vicinity of Cadiz, and numerous monkeys haunt the rock of Gibraltar. The feathered tribes are very numerous, particularly on the coast and at the mouths of rivers; and the eagle and flamingo are not uncommon. The rivers and coasts abound in fish, and some important fisheries are carried on, particularly those of sardines, on the coast of Galicia, and of tunnies and anchovies on the southwest coast.

12. Among domestic animals, the horse of Andalusia has long been celebrated, and the mules and asses of Spain are of very superior description. Horned cattle are not numerous, and only in a few districts are cows kept for dairy purposes; bulls, in great demand for the national amusement of bull-fighting, are reared in the greatest perfection in Andalusia. The favorite stock is sheep, a considerable portion of which are of the merino breed. Goats are also very numerous, and in their milk, cheese, and flesh furnish the favorite food of the inhabitants. Swine are also kept in large herds in some parts of Estramadura, and in some of the northern provinces, both near the coast and among the mountains of Asturias, where they roam at large in the forests.

13. The inhabitants of Spain consist chiefly of Spaniards proper, composed of a mixture of aborigines, Romans, Visigoths, Vandals, and Suevi, but partly also of three other distinct races—the Basques, Modejars or Moors, and Gitanos or gipsies. The Spaniards proper are of middle stature, well formed, of a sallow complexion, sharp features, dark hair, and keen black eyes. Their language, a dialect of the Latin, with a considerable infusion of the Teutonic and Arabic, is soft and sonorous, and peculiarly adapted to poetry, but has seldom been made the medium for the higher departments of literature. In diet the Spaniards are frugal and temperate; in their intercourse, dignified but agreeable; in disposition, enthusiastic, prone to chivalric exploits or excesses, according to individual character. The national sport is



BULL-FIGHTING.

bull-fighting, which is eagerly cultivated in every part of the country, and established wherever the Spaniard has located. The total population of the mainland and islands in 1849 was estimated at 14,216,219, and may now (1855) be 15,000,000.

14. In the middle ages Spain, especially in the southern provinces, had flourishing manufactures, and her products found an extensive demand in the East; but with the expulsion of the Moors, the branches which they had specially fostered fell rapidly into decay and never revived; but new demands arose in the West, and Spain, as the mother country, was still enabled, by reserving to herself the sole supply of the colonies, to carry on a number of lucrative manufactures. The loss of her American possessions, however, by putting a sudden stop to the demand, was followed by the extinction of this branch; nor have the circumstances of the country since been favorable to the revival or progress of regular industry.

15. At the present day the only noticeable manufactures are to be found in a few of the larger towns. Cotton goods are made to some extent in Catalonia, particularly Barcelona; woolens in Manresa, Tarraza, Guadalajara, and different towns of Valencia and Aragon; leather in Valladolid and several towns of Andalusia; wax-cloths in Barcelona; linen in Galicia; sail-cloth at Corunna and Cartagena; stained-paper, jewelry, and porcelain at Madrid; ironware in the Basque provinces; and cutlery and swords in Mondragon, Toledo, Albacete, Guadix, etc.; earthenware in Andujar, Alcora, Caceres, etc.; paper in Valencia and Catalonia; and tobacco in various towns, but more especially in Malaga and Seville.

16. While Spain held her American colonies, commerce like manufactures flourished in a high degree; but with their loss its trade was at once prostrated, and all its advantages from position and eligible sea-ports were unavailing to preserve to it the commercial superiority it had maintained for three hundred years. It is now reduced, as a commercial nation, to comparative insignificance.

17. The principal exports at the present day are wool, wine, brandy, oil, fruits, cork, iron, lead, mercury, and salt; with a small amount of silk and manufactured goods. The imports consist of colonial produce, dried fish and salted provisions, butter, cheese, rice, cotton, and woolen goods; cutlery, glass, and building timber. The commerce of the Kingdom with its colonies and foreign countries (values in reals) amounted in 1855 to a total of—imports 813,485,244, and exports 993,502,782, distributed as follows:

	Europe.	Asia.	Africa.	America.
Imports	442,214,919	26,108,398	2,626 676	342,535,251
Exports	682,669,056	9,732,628	8,648,065	292,453,034

In these sums are included the value of exports to the Philippines 7,631,364, and to Cuba and Porto Rico 161,013,480 reals; and the imports from the same colonies, 25,229,166 and 148,546,232 reals respectively. The shipping employed in this trade consisted of—outward-bound, 8,072 vessels, measuring 924,223 tons; and—inward-bound, 9,447 vessels, measuring 1,063,334 tons. Otherwise the United Kingdom, the French Empire, and the United States share largest in this commerce. The ports of the first class open to foreign commerce are Alicante, Almeria, Barcelona, Bilboa, Cadiz, Cartagena, Palma, San Sebastian, Santander, Seville, Tarragona, and Vigo.

18. With regard to internal trade, Spain has many disadvantages. The physical character of the country is such as to discourage progress, and hence few countries of Europe are so badly provided with commercial avenues. The public roads, except those around the capital, are miserable, and in general unfit for wheel carriages. Transport, indeed, is usually effected by means of mules. The canals also, of which there are several on a magnificent scale, are mostly in an unfinished condition, and unfit for navigation; and the railroad is as yet but locally introduced, there being in 1856 only 1,222 miles in the whole country. It is a matter

of congratulation, however, that Spain in all these—roads, canals, and railroads—is rapidly improving; and in all its industries the vivifying influences of modern progress are notable.

19. The government is an hereditary constitutional monarchy, the legislative power being vested conjointly in the sovereign and cortes. The cortes or congress consists of two equally independent chambers—that of proceres or peers, composed in part of hereditary members, and in part of members named by the sovereign for life, and that of procuradores or deputies, chosen through electoral colleges for five years, one for every 50,000 inhabitants. Either of the three powers—the crown, peers, or deputies—may originate bills (except money bills, which must originate in the deputies), and the assent of each must be obtained to the passage of bills to laws. The crown is only responsible through its ministers, composed of a council of the six principal secretaries of state.

20. Justice is administered by courts of primera instancia, audiencia, and the supreme court. Courts of the first instance are established in the several districts. Of the audiencias or courts of second instance, there are fifteen, each having its seat at some principal town, and exercising jurisdiction over two or more provinces. The supreme court has its seat at Madrid. It is composed of a president and fifteen judges, and is divided into three halls or courts—a first and second court of justice, and a third the court of the Indies. It is the high court of appeal for the Kingdom.

21. The regular army in 1855 consisted of 86,178 officers and men, namely—the royal halberdiers 603, infantry 49,608, cavalry 12,894, artillery 10,570, engineers 2,784, the civil guard 9,717, and the provincial battalions of the Canaries 303. The militia at the same time consisted of 762,040 men. The naval force consists of 76 vessels, carrying 762 guns; of which 46 are sailing-vessels, carrying 574 guns, and 30 steam-vessels, carrying 188 guns. Otherwise there are 155 other smaller vessels used as transports and in the coast service. The personnel of the navy counts 1,165 officers, 575 mechanics, and 13,507 marines and seamen.

22. The revenue is derived chiefly from import duties, internal tax, monopolies, etc., and in 1856 amounted to 1,335,921,300 reals. The expenditures amounted to 1,498,240,373. The public debt on the 1st November of the same year amounted to 12,708,269,888 reals, on which the annual interest was 204,946,061 reals. Besides this there was a floating debt of 554,072,221 reals.

23. The Roman Catholic, to the exclusion of all others, is the national religion, and the state is constitutionally bound to its support. The church is governed by eight archbishops and 54 bishops—the archbishop of Toledo being primate. The number of parishes is about 21,000. The hierarchy was once all-powerful, but since the suppression of the inquisition, the monasteries, and the regular clergy, and the secularization of the establishment, its functionaries have been entirely dependent on the state.

24. Primary education has been, and still is, greatly neglected, and away from the larger towns the people have few opportunities of acquiring even the elements of learning. The higher schools and colleges of Spain, however, are numerous and efficient; and it would be as difficult to find a Spanish gentleman uneducated, as a peasant who could read and write. These educational extremes are nevertheless gradually disappearing, and a better era is dawning for the masses. The universities, formerly 24 in number, are now reduced to 14, and these are not in a flourishing condition. Many children of the upper classes are educated in France.

25. The names of the forty-nine provinces into which Spain is now divided are in almost all cases taken from their respective capitals; but the old divisions still mark the characteristic lines of separation between the people of different parts of the Kingdom, and their various habits and pursuits. The names of both are given in the following table, which also shows the extent and population of each, with their chief towns, etc.:

Old and New Provinces.	Area, sq. m.	Population.	Capitals.	Population.
NEW CASTILE (south center):				
Madrid	1,315	405,737	MADRID	206,714
Toledo	8,773	330,000	Toledo	13,850
Guadalajara	1,946	199,746	Guadalajara	5,170
Cuenca	11,295	252,723	Cuenca	7,990
LA MANCHA (south center):				
Ciudad-Real	7,539	302,594	*Ciudad-Real*	10,235
OLD CASTILE (north and center):				
Burgos	3,068	234,022	*Burgos*	15,924
Logrono	9,474	185,519	Logrono	7,071
Santander	2,132	190,000	Santander	16,222
Soria	4,076	140,000	Soria	3,372
Segovia	3,466	155,000	Segovia	6,625
Avila	2,569	132,936	Avila	4,277
Palencia	1,733	180,000	Palencia	11,470
Valladolid	3,239	210,000	Valladolid	31,767
Leon	5,894	288,833	*Leon*	7,074
Zamora	3,562	180,000	Zamora	8,877
Salamanca	5,630	240,000	Salamanca	13,786
ASTURIAS (north):				
Oviedo	3,686	510,000	*Oviedo*	9,384
GALICIA (northwest):				
Coruna	3,877	511,492	*Coruna*	19,415
Lugo	5,297	419,437	Lugo	7,269
Orense	4,074	380,000	Orense	4,480
Pontevedra	2,649	420,000	Pontevedra	4,549
ESTRAMADURA (west):				
Badajos	6,111	336,136	*Badajos*	11,715
Caceres	8,218	264,988	Caceres	12,051
ANDALUSIA (southeast):				
Seville	3,927	420,000	*Seville*	100,498
Cadiz	3,018	358,446	Cadiz	53,920
Huelva	2,043	153,462	Huelva	7,173
Cordova	4,159	348,956	Cordova	41,976
Jaen	4,446	307,410	Jaen	17,327
Granada	3,622	427,250	Granada	61,610
Almeria	3,106	292,334	Almeria	17,806
Malaga	2,894	438,000	Malaga	68,577
MURCIA (southeast):				
Murcia	3,751	400,000	*Murcia*	55,000
Albacete	4,126	195,531	Albacete	13,143
VALENCIA (east):				
Valencia	2,659	500,000	*Valencia*	76,000
Alicante	2,561	363,219	Alicante	19,041
Castillon	2,464	247,741	Castillon	16,952
ARAGON (northeast and center):				
Saragossa	4,822	350,000	*Saragossa*	33,000
Huesca	5,179	247,105	Huesca	9,200
Taruel	4,726	250,000	Teruel	6,752
CATALONIA (northeast):				
Barcelona	3,066	533,695	*Barcelona*	121,815
Tarragona	2,626	290,000	Tarragona	13,014
Lerida	4,016	197,445	Lerida	12,236
Gerona	2,472	262,594	Gerona	7,661
NAVARRE (north):				
Navarre	2,440	280,000	*Pamplona*	15,715
BASQUE PROVINCES (north):				
Biscay	1,267	150,000	*Bilboa*	11,906
Guipuscoa	621	141,752	San Sebastian	3,000
Alava	1,082	81,397	Vittoria	10,266
BALEARIC ISLES	1,757	253,000	*Palma*	40,514
CANARY ISLES.	3,220	257,719	*Santa Cruz*	8,070
Total	182,713	14,216,219		

26. Madrid, the capital, is situated on the banks of the small river Manzanares, a tributary of the Tagus, near the center of the Kingdom, and at an elevation of 2,450 feet above the sea. It is eight miles in circuit, and is surrounded by walls. The houses are generally lofty and well-built, and the streets wide, but the whole city has a somber and gloomy aspect. The most favorite place of resort is the Prado, a spacious walk on the east side of the city two miles in length, and adorned with trees and fountains. The royal palace, on the banks of the river, is a magnificent building, and there is a splendid picture-gallery of recent erection. The national library contains 250,000 volumes. The situation of the city is exceedingly arid, but it is supplied with water brought from the mountains at 30 miles distant. The climate is intensely hot in summer, and the adjacent country unattractive and sterile. At a distance, however, are several royal residences, of which the most celebrated is the palace of the Escurial, 27 miles to the northwest, lying at the foot of the Castilian Mountains, and 3,264 feet above the sea. The Escurial contains the splendid mausoleums of many of the sovereigns of Spain; and also a fine collection of pictures, a library of 100,000 volumes, and a college.



VIEW OF MADRID.

27. Toledo, on the north bank of the Tagus, and 40 miles southwest of Madrid, is one of the most ancient and celebrated cities of the Kingdom. It was formerly the national capital, and a great manufacturing city, noted for its sword-blades and cutlery. It is now, however, of little importance. Guadalajara, 27 miles north of Madrid, has some considerable cloth works. Cuença, 84 miles southeast, is a walled town, and was at one time celebrated for its literature, its arts, and its manufactures. Ciudad-Real, in the south part of Castile, is the chief place in the district of La Mancha, in which the imaginary exploits of the celebrated Don Quixote are described to have had their origin. The names of the renowned knight and his doughty squire are familiar to the district, and the common dress of the peasantry still reminds the traveler of the description given of that of honest Sancho Panza.

28. Burgos, in Old Castile, situated near the Arlanzon, a small tributary of the Douro, has, like so many of the other towns of Spain, greatly declined from its former importance. It abounds in churches and convents, and contains a magnificent cathedral. Segovia, at the north foot of the Castilian Mountains, has some cloth works, formerly of great celebrity. It is a very ancient town, and contains various remains of Roman occupation. Near it, in a recess of the mountains 4,000 feet above the sea, is the royal palace of San Ildefonso. Santander, on the shores of the Bay of Biscay, is a considerable and flourishing sea-port. Valladolid, once the capital of the Kingdom, stands at the confluence of two small tributaries of the Douro. Its former splendor and importance have greatly declined. Salamanca was once famous for its university. Badajos, on the Guadiana, close to the Portuguese frontier, occupies an important military position, and is a fortress of great strength. It has some manufactures, and carries on a considerable contraband trade. Seville, on the Guadalquiver, was long regarded as one of the most splendid cities of the monarchy, and was the seat of an extensive silk manufacture and of great trade. It is now comparatively unimportant; its present trade consists chiefly in the export of oranges.

29. Cadiz, long the principal seat of Spanish commerce, is built at the extremity of a narrow tongue of land projecting into the sea from the Isle of Leon, which adjoins the mainland about midway between the Strait of Gibraltar and the mouth of the Guadalquiver. The isthmus which unites it to the island is strongly fortified, and the arm of the sea inclosed between it and the mainland forms a spacious bay, with excellent anchorage. Its former importance, however, has materially declined since the loss of the American colonies, but it still possesses the greater part of the trade with the Spanish West Indies and the Philippines. On the eastern side of the Bay of Cadiz is the town of Santa Maria, from which nearly the whole of the export of sherry wine takes place. The name of this wine is derived from the town of Xeres, a short distance inland, at which it is principally manufactured. On the coast, 31 miles southeast of Cadiz, is Cape Trafalgar. San Lucar, at the mouth of the Guadalquiver, is a thriving sea-port; and the small town of Palos, at the mouth of the Tinto, opposite Huelva, is memorable as the port from which Columbus sailed on his great voyage of discovery across the waters of the Atlantic.



BRIDGE OF ALCANTARA, TOLEDO.

30. In the interior of Andalusia, at a distance of 73 miles northeast of Seville, and on the Guadalquiver, is the town of Cordova, once the capital of the Moorish dominions in Spain. It contains a magnificent mosque, erected during that period, but long since converted into a Christian church. Its manufactures have declined, and it is now of little importance. Granada, situated in a beautiful plain at the northern foot of the Sierra Nevada (2,314 feet above sea-level), is remarkable for its remains of Moorish grandeur. It was the capital of the last Mohammedan dynasty in Spain, and contains the "Alhambra" or palace of the Moorish kings—one of the finest specimens in the world of Arabesque architecture. Granada is still noted somewhat for its velvets and other silk goods. Malaga, on the Mediterranean, 53 miles southwest, is a flourishing sea-port, with a great trade in the export of wines, raisins, etc. Cartagena, on the coast of Murcia, commands the chief trade of that province, and is one of the principal naval arsenals of the monarchy. Alicante, farther to the north, is also a considerable port, and exports wine, fruits, barilla, etc. Valencia, on the Guadalaviar, near its mouth, is a large town, and the seat of the silk manufacture.



THE ALHAMBRA, CITY OF GRANADA.

31. Barcelona, the capital of Catalonia, and the second city of the Kingdom, is an important manufacturing and commercial town on the Mediterranean, about 80 miles northeast of the mouth of the Ebro. It contains a fine cathedral, and also the ancient palace of the kings of Aragon. On the coast, to the north, are several small but flourishing sea-ports, as Mataro, San Felix, de Quixols, Rosas, and Cadaques. Tarragona, to the southwest of Barcelona, is also a place of considerable trade.

32. Saragossa, divided into two parts by the Ebro, on the banks of which it is situated, midway of the isthmus between the Bay of Biscay and the Mediterranean, is an important town, but is chiefly noted in modern times for the memorable siege which it sustained against the French in 1808 during the Peninsular War. Pamplona, to the north, in Navarre, and near the French frontier, is one of the principal fortresses in Spain. Bilboa, in Biscay, about 10 miles south of the bay of that name, has a great trade in wool, and is a flourishing commercial town. San Sebastian is a strongly fortified and flourishing sea-port only a short distance from the French border. Both this town and Vittoria (50 miles to the southwest) have been rendered memorable by the occurrences of the Peninsular War.

33. Oviedo, in Asturias, is a place of some trade. Gijon is the principal port of the province. Corunna, on a fine bay of the coast of Galicia, midway between capes Ortegal and Finisterre, is a flourishing commercial town, and one of the principal ports of the Kingdom. It is strongly fortified. Ferrol, on the opposite side of the bay, is also a place of considerable trade, and one of the three principal naval arsenals of the Kingdom. It has one of the best harbors in Europe. Santiago de Compostella, in the interior of Galicia, has a fine cathedral, and possesses one of the most flourishing universities in Spain. It has also some manufactures of linen and silk.

34. The Balearic Islands lie in the Mediterranean, off the southeast coast. Majorca, the largest of these, has an area of 1,260 square miles. It is hilly and rugged, but well watered by rivulets and springs. Minorca, 38 miles east, contains 240 square miles, and has three excellent harbors. Ivica and some smaller islands complete the group. These islands have an excellent soil and climate. Palma, their principal town, lies at the head of a fine bay on the south side of Majorca, and possesses some trade. It is also the seat of a university. Port Mahon, on the east coast of Minorca, is a fortified commercial town, with one of the finest natural harbors in Europe.

35. The Canary Islands are situated 900 miles south from Cadiz, between latitudes 27° and 30° north, and longitudes 13° and 19° west. The principal islands are Gran Canaria, Teneriffe, Palma Gomera, Hiero or Ferro, Fuerta Ventura, Lanzaroti, Gracioso, Alegranza, Santa Clara, Lobos, and Rocca. They are all of volcanic formation, mountainous and rugged, and their coasts often precipitous. The Peak of Teneriffe, the loftiest culmination, is 12,236 feet high. They enjoy a delightful climate, and produce wine, barilla, orchilla, etc., which are largely exported. These are the Fortunate Islands of the ancients, and Ferro (latitude 27° 45′ north, and longitude 18° 75′ west) is on the prime meridian of Spanish geographers. The towns of Santa Cruz, in Teneriffe, and Las Palmas, in Gran Canaria are the principal commercial ports.

36. The colonies still remaining to Spain are the fine and productive islands of Cuba and Porto Rico in the West Indies, the Philippine Islands in the Eastern Archipelago, and several "presidios" on the coast of Morocco. These add about 4,250,000 souls to the dominion of Spain. At one period of history Spain held in possession more than one half of the New World.

37. The history of Spain dates far back into the past. The first settlers are said to have been the descendants of Tubal Cain. The Phenicians and Carthaginians successively planted colonies on the coast; and the Romans, for a considerable period, held the whole country. It was on Spanish soil that some of the mightiest deeds of Hannibal were displayed.

38. On the decline of the Roman Empire the country was overrun by the Vandals, the Alans, and the Suevi. It was afterward subdued by the Visigoths, who laid the foundation of the present monarchy. The dominion of the Moors over the southern portion of Spain lasted from 1091 to 1492, when Ferdinand and Isabella drove them from their strongholds. Spain to this day is replete with remains of the grandeur of their works, and the country still languishes under the loss of the arts they exercised.

39. Spain now discovered America, and planted there a mighty empire on the ruins of its aboriginal natives. In 1580 the scepter of Spain was extended over Portugal; but after a



THE TOWN AND ROCK OF GIBRALTAR.

captivity of 60 years, that country regained its independence. Gibraltar* was taken by the English in 1704, and is still held by that nation.

40. The French Revolution, and the events that succeeded it, prostrated Spain, and the great power and wealth it had attained from the time of its first sole monarchy at once vanished. In America its vast possessions have dwindled down to comparative insignificance, and at home the prestige of its former glory has passed away. The nation, however, is slowly rising from its abasement, and advancing in industry, education, and administrative policy.

[*Weights, Measures, and Moneys.*—The weights and measures of the French metrical system have recently been decreed to be the legal standards in Spain and its colonies. The old series (Castilian), however, are as yet in general use, and are as follows:

Weights.—The "libra" or lb. of 2 marcos or 16 oncas (= 460.14 grammes) = 7,101.6 Troy grains or 1.0144 lb. avoirdupois; 100 lbs. = 4 arrobas = 1 quintal

Measures.—The "pie" or foot of 4 palmos menores or 12 pulgadas (= 282.65 millimetres) = 11.1283 inches or 0.9273 feet; 3 pies = 4 palmos majores = 1 vara or ell; 5.000 varas = 1 legua Castellana; 8,000 varas = 1 Spanish legua. The arroba mayor or cantaro (wine measure) of 8 acumbres or 32 quartillos (= 15.75 litres) = 4.16 gallons; 1 arroba menor (oil measure) of 4 quartillos or 100 quarterones (= 12.99 litres) = 3 44 gallons; 16 arrobas mayores = 1 moyo; 30 arrobas mayores or 38½ menores = 1 botta; 27 arrobas mayores or 34½ menores = 1 pipa. The fanega (dry measure) of 12 celemines or almudes or 48 quartillos (= 54.8 litres) = 1.56 bushel; 48 fanegas = 4 cahiz = 1 last.

Moneys.—Accounts are kept in "reals" = one 20th of the peso duro or hard dollar The gold coins of Spain are coined at the rate of 8½ doblons of 8 escudos d'oro to the mark of gold 875 parts fine, and the silver coins at the rate of 8¼ pesos duros of 8 reales fuertes to the mark of silver 902¾ parts fine. The gold coins are the doblon and its half, the pistole of 2 escudos, the escudo, and the coronilla or gold dollar; and the silver coins are the peso duro or hard dollar, and its halves, quarters, eighths, and sixteenths. Intrinsically the "doblon" is = $15.7426 and the "peso duro" = $1.0158 United States money.

In the several provinces the weights and measures differ considerably, and also the method of stating accounts.]

KINGDOM OF PORTUGAL.

1. Portugal, occupying the west side of the southern peninsula, is situated between latitudes 36° 55′ and 42° 7′ north, and longitudes 6° 15′ and 9° 30′ west; and is bounded north and east by Spain, and south and west by the Atlantic Ocean. Its shape is that of a parallelogram, with a length of 340 miles, and an average breadth of 120 miles. Area, including islands, 42,415 square miles.

2. The coast-line has an extent of about 500 miles; it is but little broken, and does not present a single bay of great magnitude. Though occasionally bold and rising to a great height, it is for the far greater part low and marshy, and in many places lined with sands and reefs, which make the navigation dangerous. The only harbors of importance are those of Lisbon, Oporto, Setubal, Figueira, Aveiro, and Viana.

3. The interior is generally mountainous, a number of ranges stretching across the country and forming a succession of independent river basins. The loftiest range is the Serra d'Estrella, a continuation of the central chain which stretches across Spain, between Old and New Castile and between Leon and Estramadura, and attains its culmination at 7,524 feet. Nearly parallel to this chain, and at no great distance from it on the north, is the Serra de Alcoba, and on the south the Serra Moradel, and at either end of the Kingdom other lofty mountains

* Gibraltar is the "Mons Calpe" of the ancients, one of the Pillars of Hercules, and rises from the sea to the elevation of 1,439 feet. It derives its name from Tarek, a Moorish general who first built a fort here in the eighth century. The north and east sides form a line of almost perpendicular precipices; and the rock is now so fortified as to be deemed impregnable. Its position at the entrance of the Mediterranean renders it of the highest importance as a naval and military station. The town is built at the northwest foot of the rock, and consists principally of a single street, about a mile in length.

enter and stretch across the country, terminating on the coast in lofty headlands. Ramifications from these penetrate in all directions, forming the watersheds of numerous subsidiary streams, and inclosing many wild and beautiful valleys. Owing to the rugged nature of the country, plains are few and of limited extent—the principal, those of Almeida in Beira Alta, and the Terra de Braganza in Tras-os-Montes. The chief valleys are those of Chaves, Villarica, and Besteiros.

4. No rivers of importance have their rise in Portugal, and yet few countries are better supplied with large and navigable streams. The Minho, in the north, forming the boundary between Spain and Portugal; the Douro, which outlets at Oporto; the Tagus and the Guadiana, all enter the country from Spain. The latter river in the lower part of its course flows nearly south, and for some distance from its mouth divides south Portugal from Spain. The Vouga, Mondego, and Sado have their courses wholly in Portugal. Numerous small lakes are scattered over the surface and embosomed in its mountains.



5. Granite generally forms the nucleus of the mountains, overlain in the north by micaceous schist and other primitive rocks; and in the south by primitive limestone. Volcanic formations are apparent in the Serra de Caldeirão. The mineralogical treasures seem more remarkable for their variety than for their value, though some are worked to advantage. They include argentiferous lead, iron, copper, cobalt, bismuth, antimony, fine marble, slate, salt, saltpeter, lithographic stones, millstones, and kaolin. Some gold is also washed from the sands of the Douro, Mondego, and other streams, and in several serras, particularly those of Estrella and Gerez; and many valuable pebbles and rock-crystals are found in different places.

6. The climate is greatly modified by the proximity of the sea and the height of the mountains—the former by refreshing breezes tempering the summer heat, and the latter making the winter more rigorous than is usual in countries under the same latitudes. In general, however, the winter is short and mild, and in some places never completely interrupts the process of vegetation. During the month of July the heat is often extreme, and rain seldom falling, the country, particularly along the coast, assumes a very parched appearance. The drouth generally continues through August and far into September. From October to April deluges of rain continue to fall, and violent hurricanes and thunder-storms are not unfrequent. At this season, too, shocks of earthquakes are sometimes experienced, particularly in the vicinity of the metropolis, where the disasters occasioned in 1755 were fearful almost beyond description.

7. Many of the mountains are covered with fine forests, in which oak and cork trees are conspicuous. In the central provinces, at a moderate elevation, magnificent chestnut-trees abound; and in the south both the date and aloe thrive well. Fruits of excellent quality are abundant, though it is only in the warm and better sheltered districts that the orange, lemon, and olive are cultivated with success. The mulberry is admirably adapted to the climate, and yields excellent silk. But the most important branch of industry is the cultivation of the vine; and the well-known port wines, the produce of the vineyards watered by the upper Douro, form the staple export. The olive thrives, but the oil is of an inferior quality. But agriculture, properly so called, is very primitive, and Portugal fails in ordinary years to raise cereals in sufficient quantity for its own consumption. Wheat, barley, oats, flax, and hemp are cultivated in the elevated tracts; rice in the lowlands.

8. Among domestic animals the first place is due to the mule, of which very superior breeds have long been possessed and are carefully preserved. Sheep, goats, and hogs are very numerous, but horned cattle are few, and of a very inferior description. Game is not abundant. Along the coast are valuable fisheries, but these are so neglected that the greater quantity of the fish used is obtained by importation.

9. As to manufacturing industry, Portugal is far behind even Spain. True, articles of necessity are made in every household; but there are few large establishments. Among the articles produced for the market may be mentioned—armor at Lisbon; woolens at Portalegre, Covilhão, and Tundão; porcelain at Vista-Alegre; delft and ordinary earthenware at Lisbon, Oporto, Coimbra, Beja, Estremoz, etc.; prints and laces at Lisbon and Oporto; cotton-twist at Thomar; silks at Braganza, Chacim, Oporto, etc.; copper and tin ware at Lisbon and other places; corks, ribbons, embroidery, hats, confectionery, fine soap, jewelry, paper, wicker-work, etc. Ship-building is also well understood, and a large number of vessels are constructed at Lisbon, Figueira, Oporto, and Villa do Conde.

10. With Brazil, Portugal lost its chief commercial support, but its trade still continues to be considerable. The principal exports are wine, brandy, vinegar, salt, oil, pork, fruit, nuts, olives, oranges, lemons, etc.; silk, wool, cork, sumach, kermes, leeches, bones, glass, and porcelain. The imports consist of wheat, rye, barley, and maize; foreign timber, salted provisions, colonial produce, woolen, cotton, linen, and silk tissues; iron, steel, and various other metals, etc. In 1854 the total value of exports was 14,164,037,971 reis, and that of imports 18,201,902,315 reis. More than three fourths of the exports were from the United Kingdom and her colonies, and a seventh from Brazil; and of the imports, a third were from the United Kingdom, and a sixth from Brazil. Next in proportion to their trade are the United States, Spain, France, Russia, Sweden, Hamburg, Holland, etc. The trade with its own colonies is comparatively trifling.

11. The length of the sea-coast, with the harbors found upon it, and the navigable rivers, furnish great facilities for commercial movement; but all other means of internal communication are very defective. The common roads are execrable, and as yet the railroad and electric telegraph have been but partially brought into operation. Mules are the usual draught animals. Under these circumstances the domestic trade is languishing, and many parts of the country are never even visited by the common carriers.

12. The Portuguese are of the same stock with the Spaniards, and speak a cognate language. Their government is an hereditary constitutional monarchy, with an elective legislature and independent judiciary. The legislative power is vested jointly in the sovereign and two chambers, which meet at regular periods without the intervention of the crown. Justice is administered in local courts, the decisions of which are subject to revision in provincial courts; and high courts are located at Oporto and Lisbon, that of the latter place having jurisdiction over the whole Kingdom.

13. The national religion is the Roman Catholic. Ecclesiastical affairs are administered by a patriarch of Lisbon, the two archbishops of Braga and Evora, and fourteen bishops. The inquisition was abolished in 1821. In the whole country there are about 1,200 elementary schools, a normal seminary, 350 classical schools, 27 lyceums or colleges, and at Coimbra a university. Education, however, is far from being general. Besides these there are several schools of medicine, polytechnic and naval academies, military schools, schools of mines, etc.

14. The Portuguese army consists of about 25,000 men, and in time of war to 50,000. The navy in 1855 consisted of 43 vessels, carrying 413 guns, namely—one ship of 80 guns, one frigate of 50 guns, 5 corvettes, each of 18 guns, 6 brigs of 14 to 18 guns, one schooner of 6 guns, 10 other vessels, carrying collectively 46 guns, 13 transports carrying 15 guns, and 6 steamers carrying 26 guns. The service is conducted by 216 officers and 2,167 marines and seamen.

15. The government revenues are derived from taxes chiefly indirect, and in 1855–6 were estimated at 12,224,492,384 reis. The expenditures for the same years were estimated at 12,721,171,794 reis. The expenses of the public debt amount to one fourth the whole, and the remainder is disbursed in the several ministerial bureaux. These sums are exclusive of the receipt and disbursement of trust-funds, which amounted to 1,807,722,869 and 1,591,717,638 reis respectively. The public debt on the 30th June, 1854, amounted to 89,824,360,562 reis, the foreign debt being 46,002,665,454 reis.

16. The Kingdom is divided into 10 provinces and 21 districts, which are subdivided into 142 judiciaries, 288 communes, and 3,982 parishes. The area and population of the districts in 1854 were as follows:

Provinces. Districts.	Area, sq. m.	Population (1854).	Capitals.	Popula.
Minho (northwest):				
Viana	956	188,659	Viana	8,000
Braga	1,088	300,607	Braga	18,000
Porto	1,086	362,000	Oporto	80,000
Tras-os-Montes (northeast):				
Villa-Real	1,647	184,888	Villa Real	5,500
Braganza	2,380	129,686	Braganza	5,800
Douro (west):				
Aveiro	1,456	237,162	Aveiro	4,200
Coimbra	1,824	261,856	Coimbra	16,000
Beira Alta (central):				
Viseu	1,291	303,786	Viseu	10,000
Beira Baixa (east and central):				
Guarda	2,128	212,588	Guarda	3,000
Castello-Branco	2,474	139,933	Castello-Branco	5,800
Estramadura (west):				
Leiria	1,315	141,461	Leiria	2,600
Santarem	2,320	165,463	Santarem	8,000
Lisboa	3,622	423,705	Lisboa	280,000
Alemtejo (east):				
Portalegre	2,390	87,039	Portalegre	6,500
Evora	2,618	89,633	Evora	16,000
Beja	5,008	124,390	Beja	5,800
Algarve (south):				
Faro	2,151	146,365	Faro	8,600
Azores (islands):				
Occide.: Horta	2,826	66,055	Horta	4,000
Central: Angra	1,275	70,404	Angra	10,000
Orie.: Delgada	1,445	101,451	Ponta Delgada	21,000
Madeira and Porto Santo (islands):				
Funchal	1,615	107,088	Funchal	18,000
Total	42,415	3,844,119		

17. Lisboa or Lisbon, the capital, is a large straggling city built on several hills, with interjacent valleys, on the right bank of the estuary of the Tagus. Latitude 38° 42′ 2″ north, and longitude 9° 8′ 2″ west. The newer part of the city is laid out in regular streets, lined with good houses, and contains two large open squares—the Praça do Rocco, on which are the palace and prisons of the Inquisition, now used as offices of the ministry, and a great number of elegant shops and coffee-houses; and the Praça do Commercio, occupied by the Exchange, India House, Custom-house, the Royal Library, etc., with a bronze statue of Joseph I. in the center. The greater part of the old city consists of narrow, winding, dirty streets. The public buildings present little that is attractive. Of its 250 churches, only three are deserving of notice—the cathedral or basilica of Santa Maria, San Roque, and the Coraçao do Jesus. There are three royal palaces—the Ajuda, the Bemposta, and the Necessidades. The residences of the nobility are also very splendid. Lisbon possesses an academy of sciences,



LISBON, WITH BELEM.

a botanic garden, a cabinet of natural history, a college of nobles, several large libraries, of which that belonging to the sovereign contains 100,000 volumes, etc. The city is profusely supplied with water, and among its many splendid architectural monuments must be named the magnificent aqueduct of Alcantara, with 36 arches of white marble. Few people are employed in manufactures. Some fine woolen cloths are made, some linen, and a considerable quantity of silk goods. The greatest artistic taste is displayed in jewelry, and the gold and silver smiths are excellent workmen. The foreign trade is large and valuable; the chief articles of export being oranges, citrons, wine, wool, oil, and leather, and the chief imports woolen and cotton goods, fish, butter, grain, and cheese. The Tagus, above the city, expands into a wide estuary, and forms a most secure and spacious harbor; but for a space of five miles below it contracts its breadth to less than a mile, and the bar at the entrance is dangerous to be passed without the aid of a skillful pilot. Between the bar and the city the fort of St. Julian and the strong castle of Belem form its principal defenses. Few finer objects can be seen than a panoramic view from the harbor; the smooth expanse of water studded with

shipping, the vineyards on the surrounding hills, and the straggling city extending three miles along the shore, afford a scene which can scarcely be equaled. A great part of Lisbon was destroyed and 60,000 lives lost by an earthquake which occurred in 1755. It was taken by the French in 1807; but successfully resisted the attacks made by them in 1809.

18. Porto or Oporto, a large sea-port town, is situated on the Douro, two miles from its mouth. The town is very irregular and straggling, but is second only to Lisbon in industrial pursuits and commercial importance. The principal trade consists in wine, which is grown in the neighboring country, and which, under the name of "port," has a world-wide celebrity. The river affords a tolerably secure harbor, and is lined with a quay along the whole length of the city. Its mouth is obstructed by rocks and quicksands, which render entrance difficult, but the water is very deep in front of the quays. Oporto has 4 suburbs, 11 campos



CITY AND HARBOR OF OPORTO.

or squares, 14 hospitals and asylums, 90 churches, besides a fine and spacious cathedral, etc. On the south side of the river, which is crossed by a bridge of boats, is the Villa Nova de Gaya, chiefly inhabited by wine-coopers, and containing the immense vaults or lodges where the wine is kept till stored. The city, including Villa Nova and all its suburbs, contains probably 100,000 inhabitants.

19. The other larger cities of Portugal are Braga, Coimbra, Evora, Setubal, Elvas, Viseu, Portalegre, Faro, Tavira, etc. All others are of smaller size, but many of them important for their manufactures and trade, and a large number for their historical associations. Braga, 30 miles north-by-east of Porto, is a very ancient city, and contains numerous Roman remains, and has an industrious commercial population. Guimaraens, southeast of Braga, a flourishing manufacturing town, was the first capital of the Kingdom. Coimbra, on the right bank of the Mondego, 112 miles north-northeast of Lisbon, is the seat of a university, the only one in the country, and has a considerable inland trade. Evora is chiefly noted for its antiquities referable to the Roman period. Elvas is the strongest place in the Kingdom, and one of the principal fortresses in Europe. Setubal (St. Ubes) is a large sea-port town 16 miles south-southeast of Lisbon. It exports wines and oranges and salt produced in the vicinity. Santarem (St. Irené) is a large fortified town on the Tagus, and also noted for the splendor of its churches, monasteries, and convents. Its position is impregnable. Viseu, 50 miles north of Coimbra, is noted for its great annual fair for jewelry and plate, cloth and cattle. Portalegre is noted for its cloth manufactures. Faro and Tavira are sea-ports on the south coast, and engage largely in the fisheries. Chaves, near the north frontier of the Kingdom, is frequented for its mineral waters, which have enjoyed celebrity since Roman times.

20. The Azores or Western Islands are situated in the Atlantic, between latitudes 36° and 40° north, and longitudes 25° and 31° west. These are the islands of San Miguel, Terceira, Pico, San Jorge, Flores, Fayal, Santa Maria, Graciosa, and Corvo, all of volcanic formation and mountainous. The climate is mild and equable, and large quantities of wine are produced. San Miguel, 50 miles in length and from 6 to 10 miles wide, and the largest of these islands, is noted for its vineyards and olive groves. On the island of Pico is the snow-capped volcanic cone of the same name, 7,911 feet high. The other islands present little remarkable. The people are chiefly of Portuguese descent, but present many local distinctions. They are generally industrious, sober, and frugal, but poor and ignorant. Many of the male laborers have expatriated themselves to labor in more favorable localities. The principal towns are Angra in Terceira, Ponta Delgada on the south side of San Miguel, and Horta in the island of Fayal. All these have harbors and considerable trade; and that of Horta is the best harbor of the group. Ribiera-Grande, on the north side of San Miguel, is also a large and flourishing town.

21. Madeira is situated off the northwest coast of Africa, in latitude 32° 30′ north, and longitude 16° 40′ west, and is 35 miles long by 10 or 12 miles broad. The island rises abruptly from the Atlantic, and forms a huge mass of mountains culminating in the Pico Ruivo 6,056 feet above the sea. The climate, varying with elevation, is mild and equable, and vines, spice-shrubs, and valuable timber cover the hillsides. The wines of Madeira are highly esteemed. Funchal is a large town on the south side of the island. About 35 miles northeast is the small island of Porto Santo, and to the southeast are the small rocky islets called the Desertas.

22. The colonial possessions of Portugal comprise the Cape Verde Islands on the west coast of Africa, and several islands in the Gulf of Guinea: Angola, Mozambique, etc., on the southern half of the African mainland, and some small settlements in the East Indies, with Macao in China, and settlements in Timor, etc. The Portuguese foreign possessions were formerly much more extensive, and included Brazil, in South America, and extensive territories in Hindoostan and other parts of the Asiatic continent.



ESTROZA PASS, MADEIRA.

23. Portugal forms the far larger part of ancient Lusitania, so called from the Luzi, an indigenous tribe which occupied the country between the Tagus and the Douro. Phenician and Grecian colonies are said to have been established on its coasts at a very early period, and the Carthaginians subsequently formed several establishments. About 200 B. C. the Romans became sole masters, and continued in possession for nearly six centuries, and were superseded by the Suevi, Vandals, and Visigoths.

24. In the beginning of the eighth century Portugal shared the fate of Spain, and was overrun by the Moors. The former inhabitants, descendants of the northern invaders, retired to the more inaccessible districts, and succeeded in maintaining their independence. After a long struggle, during which many battles were fought and many illustrious deeds achieved, they regained the ascendant, and the Portuguese monarchy was formally established by the cortes at Lamego in 1143.

25. In 1385 a new dynasty was founded under John I. With him commenced the long series of maritime discoveries which ultimately placed Portugal at the head of a great colonial empire. He personally undertook an expedition to the coast of Africa, and made a conquest of Ceuta and part of the adjoining country. The spirit of enterprise thus excited became a kind of national passion, and the expeditions fitted out were crowned with brilliant success. In 1418 Madeira was discovered; in 1432 the Azores; and in 1486, after a succession of adventurers had explored the greater part of the west coast of Africa, the Cape of Good Hope was beheld by Diaz. Vasco de Gama, following in the same track, was still more successful. In 1497 he doubled the cape, and continuing his course eastward reached the shores of Martaban. A still more fortunate discovery was made in 1500 by Pedro Alvarez Cabral, who, while bent on a different course, was driven by a storm to the coast of Brazil, and thus led to the formation of a settlement which has since grown up to be an empire.

26. After these discoveries, and the treasures obtained from them, had raised Portugal to the highest pitch of prosperity, a disputed succession brought it to the verge of ruin, and subjected it to the thralldom of a hated foreign yoke under Philip II., king of Spain. This usurpation, after lasting for 60 years, was terminated in 1640 by a general rising, headed by the Duke of Braganza, who, on the expulsion of the Spaniards, ascended the throne under the name of John IV.

27. On the invasion of the French in 1807 the royal family went to Brazil. From 1827 to 1833 the throne was usurped by Don Miguel, and in 1836 several changes were introduced and the existing constitution was established. The erection of Brazil in 1826 into an independent empire robbed Portugal of the richest jewel of her crown, leaving her scarcely a show of her former colonial greatness.

[*Weights, Measures, and Moneys*.—Portugal still adheres to her ancient system of measures and money:

Weights.—The arratel or lb. of 2 marcos or 16 oncas (= 459 grammes) = 7,084 grains Troy or 1.0120 lb. avoirdupois; 128 lbs. = 4 arrobas = 1 quintal, and 54 arrobas = 1 tonelada.

Measures.—The craveiro (= 220 millimetres) = 8.66157 inches; 1½ craveiro = 1 pe or foot; 5½ craveiros = 1 vara; 3 craveiros = 1 covado; 10 craveiros = 1 braça. The geira (land measure) = 4,840 square craveiros; the almuda of Lisbon of 2 alqueires or 12 canadas (= 16.74 litres) = 4.4225 gallons; the almuda of Oporto (= 25.42 litres) = 6.7157 gallons; 18 almudas = 1 baril; 26 almudas = 1 pipa or botta, and 2 pipas = 1 tonalada. The alqueire (corn measure) of 2 meyos or 8 celemines at Lisbon (= 13.8411 litres) = 0.39308 bushel, and at Oporto (= 17.3 litres) = 0.49096 bushel; 4 alqueires = 1 fanega, and 15 fanegas = 1 moyo.

Moneys.—Accounts are stated in "reis;" 1,000 = 1 milrea, and 1,000 milreas = 1 conto. The present series of coins was decreed in 1835. The gold coins consist of the coroa or crown of 5,000 reis and its half, which are minted at the rate of 24 crowns to the mark weight of metal 22 carats or 916⅔ fine, and hence compared with United States gold coin = $5.82634. The silver coins are the coroa, of 1,000 reis, and its half, fifth, and tenth, minted at the rate of 7⅓ coroas to the mark weight of metal 11 dwts. or 916⅔ fine, and hence the coroa compared with U. S. silver = $1.12862.

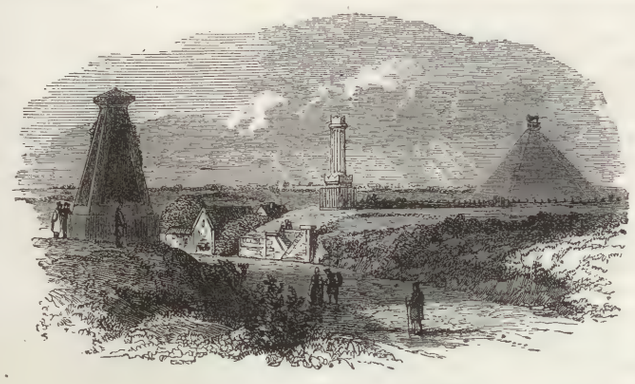
KINGDOM OF BELGIUM.

1. Belgium, the most densely populated country of Europe, and at the same time one of the most prosperous, is situated between latitudes 49° 27′ and 51° 30′ north, and longitudes 79° 30′ and 83° 9′ west from Greenwich; and is bounded on the north by Holland, on the east by Rhenish Prussia, on the south and southwest by France, and on the northwest by the German Ocean. The greatest length of this Kingdom, which is in a northwest and southeast direction, measures 165 miles, and the greatest breadth thereof is 120 miles. The area is estimated at 11,402 square miles.

2. The surface of Belgium may be regarded as an inclined plane, somewhat rugged, and

considerably elevated in the southeast, from which it slopes more or less gradually north and west, till it sinks into low plains only a few feet above the level of the sea. The elevated districts are formed by ramifications of the Ardennes, which, entering Belgium from France, stretch along the south of Namur, occupy the greater part of Luxemburg, and attain their culmination in the southeast of Liège, in the neighborhood of Spa, where the height exceeds 2,000 feet.

3. In accordance with the general slope of the surface already mentioned, the main streams have a northerly direction; and the whole country lies within the basin of the German Ocean. In the southeast, where the surface is elevated, numerous torrents descend with rapidity; and becoming confined within rocky, precipitous, and richly wooded banks, furnish, if not the grandest, picturesque and beautiful landscapes. On reaching the lower country their speed is slackened, and their augmented volume moves along in a slow, winding course. Only two of them—the Meuse and the Scheldt—have a magnitude which entitles them to the designation of rivers, but so important are these two in themselves, and so numerous their affluents, that no country in Europe is better supplied with water communication. Besides the Scheldt and Meuse, the navigable streams are the Ambleve, Demer, Dender, Darme, Dyle, Lys, Great Nethe and Little Nethe, Ourthe, Rupel, Sambre, Yperlee, and Yser.



MONUMENTS ON THE FIELD OF WATERLOO.

4. In the elevated region, the rocks appear to rest on primary formations, but those which reach the surface consist generally of slate, old red sandstone, and mountain limestone. Proceeding northwest in the direction of the dip, these rocks take a cover, and the coal formation becomes fully developed. This coal-field is a continuation of that of the north of France. It contains numerous workable seams of both coal and iron. Beyond the limits of this coal-field, north and west, a more recent formation is found, covered by deep beds of clay and sand, the former prevailing more in the interior, and the latter near the coast, where it has been drifted into hillocks or downs, and forms the only barrier against the encroachments of the sea.

5. The climate, though subject to sudden changes, is on the whole temperate and agreeable. Where the surface is high, and diversified into hills and dales, the atmosphere is pure and bracing, and favorable to health and longevity. The only parts of the country which can be considered unhealthy, are the low flats which prevail in Flanders, and the *polders* or rich alluvial tracts which have been gained from the rivers by embankment. In these places, agues and other diseases engendered by a humid and sluggish atmosphere are prevalent.

6. Nearly one fifth of the whole Kingdom is covered with wood. The distribution of it, however, is by no means equal. In the wooded districts, extensive tracts are covered with natural forests, in which the wolf and wild boar still have their haunts. These are the remains of the ancient forest of Ardennes, and consist of hard wood, principally oak, which furnish valuable timber and large amounts of bark for tanning purposes, and also charcoal, which is used in smelting and working iron.

7. The inhabitants of Belgium are composed of two distinct races—the Flemish, who are of German, and the Walloons, who are of French extraction. The former are the more numerous. The language of each corresponds with their origin—the Flemings speaking a dialect of the German, and the Walloons, a dialect or rather corruption of French, with a considerable infusion of words and phrases from Spanish and other languages. The people generally are moral, industrious, and apparently in comfortable circumstances. The far larger portion is rural.

8. As an industrial state, Belgium stands in the first rank among nations. Agriculture is pursued on a scientific basis, with remarkable ingenuity and adaptation, and deservedly have the people been regarded as the model farmers of Europe. About two thirds of the whole Kingdom is under cultivation, and nearly eight ninths profitably occupied. Of the waste, which occupies only about one ninth, the greater part belongs to the comparatively barren districts of the east, and hence in the more favored provinces the quantity of waste is so very small, that their whole surface may be regarded as one vast garden.

9. Considerable attention has been paid in Belgium to the rearing of stock, and the breeds both of cattle and horses are of a superior description. The horses of Flanders, in particular, are admirably adapted for draught; and in the elevated region of the Ardennes they produce a hardy breed of horses, which, being well suited for light cavalry, are largely exported to France for that purpose. Vast herds of swine are fed on the mast of the forests. The great care devoted to stock, however, does not cause a neglect of other departments of husbandry. Besides valuable grain crops, roots of every description are cultivated, and in the hilly and rocky regions, on which nothing else could be profitably grown, the vine is seen climbing the sunny slopes.

10. Next to agriculture, mining forms the most important of Belgian interests. This industry is confined to the provinces of Hainault, Liège, Namur, and Luxemburg; and the minerals wrought are lead, manganese, zinc, iron, and coal, the last two being the most prominent. The principal seat of iron mining is the country between the Sambre and the Meuse, and also in the province of Liège. The coal-field already described has an area of above 500 square miles, and the annual out-put exceeds 3,000,000 tons, nearly two thirds of which amount are obtained in Hainault. It forms the largest and most valuable of Belgian exports. Besides minerals properly so called, Belgium is abundantly supplied with building-stone, marbles, roofing-slate, etc.

11. The manufactures of Belgium are numerous, and the superiority of many of them as compared with most other countries is confessed. The fine linens of Flanders and the lace of Brabant are of universal reputation. Scarcely less celebrated are the carpets and porcelain of Tournay, the cloths of Verviers, the carriages of Brussels, the cutlery of Namur, the extensive founderies, machine works, and other iron establishments of Liège. The cotton manufacture, confined chiefly to Flanders, gives employment to many thousands of the inhabitants.

12. Geographical position and great facilities of transport early combined to place Belgium in a high rank among commercial nations. The gradual rise of competitors more highly favored has deprived her of much of her pre-eminencee, but her trade is still of great importance, and of late years has made a rapid advance. Her coal and iron, and the numerous products of her manufactures, furnish in themselves the materials of extensive traffic; while the possession of one of the best harbors of the world (Antwerp), situated on a magnificent river, which directly or by canals stretches its arms into every part of the Kingdom, and now made accessible by a system of railroads with every state of central Europe, promises to make it the seat of a transit trade even more important than that which it monopolized during the middle ages. The limited extent of the sea-coast seems to make it impossible for Belgium ever to take high rank as a naval power.

13. According to the returns for the year 1854 the exports were valued at 416,473,000 francs, and the imports at 323,045,000 francs. The value of the trade with the foreign countries with which the great bulk of this commerce was carried on was as follows:

Russia	Exports	1,375,000	Imports	13,053,000	Total	14,428,000
Zollverein	"	38,032,500	"	31,544,000	"	69,576,000
Holland	"	60,890,000	"	56,494,000	"	117,384,000
England	"	109,386,000	"	55,515,000	"	164,901,000
France	"	113,801,000	"	50,068,000	"	163,869,000
United States	"	28,820,000	"	35,981,000	"	64,801,000
Cuba and Porto Rico	"	3,506,000	"	13,960,000	"	17,471,000
South America	"	12,112,000	"	21,128,000	"	33,240,000

—and with Turkey, the East Indies, Africa, Switzerland, Spain, Austria, Sweden and Norway, Denmark, etc., in less proportion. The shipping engaged in the Belgian trade consisted of—inward 2,393 (435,415 tons) vessels, and—outward 2,446 (432,371 tons) vessels. The merchant marine at the same date amounted to 212 vessels, measuring 36,227 tons. A great portion of the commerce, however, is with adjoining or neighboring states, and is conducted by means of railroads, etc., which cross the frontiers. Antwerp, Ostend, and Nieuport are the principal sea-ports.

14. Belgium is a monarchy, hereditary in the male line; but in its constitution is combined a large share of the democratic principle. The king is vested with all executive power, and the legislature reposes in the king and two chambers—the senate elected for eight and the representative for four years, both by the citizens paying taxes to the amount of about 40 francs. Justice is administered by cantonal and arrondissement courts, and by courts of appeal at Brussels, Ghent, and Liège. The highest tribunal is the court of cassation at Brussels. The provinces are administered by governors.

15. The army consists of 16 regiments (56,550 men) of infantry, 7 regiments (8,202) of cavalry, 4 regiments (6,700) of artillery, 1 regiment (1,690) of engineers and gendarmerie, besides a depôt company to each regiment of infantry and artillery, pontoniers, armorers, mechanics, etc.—in all forming an effective of 73,718 men, or on a war footing 100,000 men. Besides this force, there is a reserve of equal numerical strength; and all citizens between 21 and 50 years of age are enrolled in the *garde civique*, and form a militia of not less than 500,000. The defensive power of the Kingdom is greatly increased by numerous strong fortresses. The navy of Belgium is confined to a few steamers and a small flotilla of gun-boats.

16. According to the estimate for 1854 the revenue would amount to 128,596,590 francs, and the expenditures to 128,404,350 francs. The revenue is derived principally from customs, excise duties, direct taxes, and dues of transport; and of the expenses about a fourth is absorbed in the payment of interest on the public debt, and another fourth by the army, while large sums are annually spent in the prosecution of the public works. On the 1st May, 1855, the amount of debt of all kinds was 647,823,935 francs, of which about a third is the portion of the Netherlands debt assumed by Belgium, and an eighth had been contracted for railroads, canals, and works of public utility.

17. Belgium possesses four universities, devoted to the higher range of scientific and literary studies: two are supported by the state, at Ghent and Liège, that of Louvain by the Catholic clergy, and the free university at Brussels was founded by association. In all the large towns colleges (*athenées*) have been established, in which a superior education may be obtained; at Brussels there is also a military school, and at Brussels and Verviers industrial and commercial schools; and besides these there are schools of mining, of the fine arts, theology, medicine, music, navigation, etc., in various parts of the Kingdom. Primary schools are established in every commune, and are open to all; but education which under the Dutch was compulsory is now voluntary, and hence the attendance is at the present time much more restricted than before the separation of the monarchies, and it is said to be so limited, that not more than twelve per centum of the population take advantage of these sources of elementary instruction.

18. Belgium has several public libraries, containing rich collections; at Brussels, the library of Bourgogne, founded in 1560, consists exclusively of manuscripts; the town library contains 160,000 volumes; and the national library 80,000 printed volumes and 1,200 manuscripts. The library of the university of Louvain consists of 112,000 volumes, that of Liège of 70,000 volumes, and that of Ghent of 60,000 volumes. There are also large town libraries in all the principal places. The state also possesses several valuable depôts of archives, historical and antiquarian. Learned societies devoted to general or particular objects are very numerous. The most important as well as the most ancient is the Academy of Sciences and Belles Lettres of Brussels, the operations of which commenced in the reign of Marie Thérèse.

19. The Roman Catholic religion is professed by nearly the whole population. The Protestants scarcely amount to 20,000, nor the Jews to 1,200. The fullest liberty, however, is allowed in the expression of religious opinions, and the ministers of each denomination derive their incomes from the national treasury. The Catholics are under the spiritual charge of the archbishop of Malines, and the bishops of Bruges, Ghent, Liège, Namur, and Tournay.

20. Belgium possesses a great number of charitable institutions, consisting of richly endowed

hospitals and almshouses for the relief of every kind of misfortune, misery, and want; and each commune has its bureau of charity for the distribution of money, food, and clothing to the sick and poor; and at Brussels, Verviers, and Liège are private establishments for the employme ıt of indigent artists, while *ateliers de charité* at Antwerp, Ghent, and other cities, afford work and maintenance to destitute operatives. In the whole Kingdom there are 342 hospitals for the poor; and in all the principal cities there are hospitals and asylums for lunatics, the deaf and dumb, and the blind.

21. The Kingdom for civil purposes is divided into provinces, communes, etc. The extent of the provinces and their population on the 1st January, 1854, with the capitals and chief towns of each, are exhibited in the following tabular statement:

Provinces.	Area, sq. m.	Population.	*Capitals* and Chief Towns.
Antwerp	1,097	438,739	*Antwerp*, 116,202; Mechlin, 27,334; Lierre, 13,425; Turnhout, 13,250; Geel, 7,038.
Brabant	1,271	779,922	Brussels, 251,631; Louvain, 29,624; Tirlemont, 8,362; Diest, 7,720; Hal, 6,507.
Flanders, West.	1,252	640,144	*Bruges*, 57,019; Courtray, 22,108; Ypres, 17,877; Ostend, 16,212.
Flanders, East	1,160	792,312	*Ghent*, 112,410; St. Nicolas, 20,088; Lokeren, 17,205; Alost, 15,917; Renaix, 13,292.
Hainault	1,441	763,776	*Mons*, 23,165; Tournay, 34,701; Ath, 9,002; Charleroi, 7,872.
Liège	1,120	494,793	*Liège*, 81,789; Verviers, 21,708; Huy, 9,086; Heristal, 6,812.
Limburg	934	193,550	St. Tron, 10,297; *Hasselt*, 9,201; Tongres, 6,180; Bilsen, 3,507.
Luxemburg	1,710	196,074	*Arlon*, 4,508; Bouillon, 2,952.
Namur	1,417	285,672	*Namur*, 24,362; Dinant, 6,388.
Total	11,402	4,584,982	

22. Brussels (Bruxelles), the capital, is situate on the Senne, about 50 miles from the German Ocean, and in latitude 50° 51′ 11″ north, and longitude 4° 21′ 55″ east. It is the most important city of the Kingdom, and is remarkable for the number and richness of its ancient buildings; and from the elegance of its new quarters, it ranks among the finest cities of Europe. Brussels is also one of the great centers of wealth and industry, and in manufactures is still celebrated for its lace, fine linens, damask, ribbons, jewelry, mathematical and musical instruments, etc. It has also large establishments for coach-building and cabinet-making, and manufactures of chemicals, soap, porcelain, crystal, and glass; and its sugar-refineries and breweries are very extensive. The commerce of Brussels is facilitated by a canal which connects it with Antwerp, and by excellent roads and railroads which radiate in every direction. It is a very ancient city, believed to have been founded in the seventh, and was fortified in the eleventh century, and has been successively the residence of the dukes of Brabant and the Spanish and Austrian governors of the Netherlands; and previous to 1830 it was one of the capitals of the Kingdom, and alternately with the Hague, the seat of the court and the states-general. Nivelles, Waterloo, Genappe, Belle-Alliance, Quartre-Bras, Wavre, the forest of Soignes, etc., all to the south or southeast of Brussels, are noted for the great battles which in June, 1815, finally extinguished the power of Napoleon. Louvain is a large and fine town, but much reduced from the rank it formerly occupied. It has long been celebrated for its university, and besides this edifice it contains several others of fine architecture. Its cloth manufactures are still considerable.



CATHEDRAL OF ST. GUDULE.

23. Antwerp, on the Scheldt, which is navigable for the largest ships, is a famous fortified city, and the center of the foreign trade of the country. Its port was greatly improved by Napoleon, who erected two large basins, and ships anchor in the river in from 32 to 40 feet water at ebb tide. The manufactures consist principally of silk and cotton hosiery, linen cloths, embroidery, and refined sugar. Ship-building is also extensively carried on; and a large trade, not only foreign, but also internal, is maintained. In the sixteenth century it was the richest and most commercial city of Europe, and contained 200,000 inhabitants. Railroads from all parts of Europe now center here, and steam-navigation is regularly maintained with London and Hull and with New York. Mechlin or Malines, nearly midway between Antwerp and Brussels, is a fine town, and has numerous manufactures of lace, hats, cloth, etc. It is the central station for the railroads which traverse Belgium.

24. Bruges (Brugge), on the railway from Ostend to Brussels, and at the junction of the canals from Ghent to Ostend and Sluis, 8 miles from the ocean, is one of the most flourishing commercial cities of the Kingdom, and owes its name to the number of its bridges (upward of 50) which cross its canals, and is remarkable for the many fine Gothic buildings it contains. It has numerous scientific and literary institutions, and an asylum for the blind and the deaf and dumb. The manufacture of lace occupies about a sixth of the females, and otherwise it has large manufactures of linen, woolen, and cotton goods, cordage, tobacco, and soap; while its distilleries, breweries, tanneries, dye-works, and sugar-refineries are immense establishments. Ship-building is also carried on. Its principal exports are lace and other manufactured goods, grain, and cattle. Bruges, in the thirteenth century, was one of the most commercial cities of the world, and the richest entrepôt of the Hanseatic League. Ostend is a fortified town, and one of the principal seaports, and is connected with Ghent by canal, and with Antwerp by railroad. Its harbor is tolerable, and its manufactures, trade, and fisheries are large. It has regular steam communication with London and Dover. Nieuport, between Ostend and Dunquerque, at the mouth of the Yser, is also a small fortified seaport, and has considerable trade, ship-building, and fisheries.



CATHEDRAL AT ANTWERP, FROM THE EGG MARKET.

25. Ghent (Gand), a famous fortified city at the confluence of the Scheldt and the Lys, is inclosed by walls seven or eight miles in circuit, and entered by seven gates. It is intersected by numerous canals, dividing it into 26 islands, which are connected by 70 bridges, and mostly bordered by fine quays. It has always been an important emporium of trade, and is largely engaged in bleaching, cotton-printing, and the manufacture of thread. Lace-making and woolen, silk, and linen manufactures are next in importance; also sugar-refining, distilling, tanning, salt-refining, etc., are largely carried on. Ghent has some good ship-building docks, and is connected by a ship canal with Bruges and Terneuze. The railroad from Ostend to Cologne passes through it, and hence diverges the railroad toward Malines.

26. Mons (Berghen) is a strongly fortified town on the Trouille, and communicates by canal with the Scheldt. There are numerous coal mines in the vicinity. Tournay, on the Scheldt, here crossed by several flying bridges, is also strongly fortified. The inhabitants manufacture hosiery, calico, linen, and woolen fabrics, earthenware, hardware, carpets, etc., and it has an active trade by the Scheldt, along which is a fine quay. It is connected by railroad with Ostend, Antwerp, and France.

27. Liège (Luik or Lüttich), at the confluence of the Ourthe with the Meuse, has extensive manufactures, inexhaustible coal mines, and a large commerce. It is the Birmingham of Belgium, and like its prototype has long been famous for its fire-arms, machinery, and hardware of all kinds. It has also sugar-refineries, tanneries, and distilleries. At Seraing, in the vicinity, are the extensive iron works of the late John Cockerill. The railroad from Ostend to the Prussian frontier passes through it. Hasselt, on the Demer, is a small manufacturing town. Arlon, the capital of Belgian Luxemburg, is a small town, but has an active trade in grain, and in the neighborhood are numerous founderies. Namur, at the confluence of the Sambre and Meuse, is celebrated for its cutlery, and has manufactures of iron, steel, and bronze articles. It is a strongly fortified place, and has sustained numerous sieges. Besides these, there are numerous other important cities and towns, all of which are more or less engaged in manufactures and commerce.

28. Belgium was included by Julius Cæsar in one of his divisions of Gaul, and it continued under the Romans till 409, when it became a part of the empire of the Franks, which under Clovis extended from the Rhine to the Loire. On the death of that monarch in 511, it was divided among his four sons, and ultimately, about 800, the whole was merged into the empire of Charlemagne.

29. It was subsequently subdivided into several duchies, which having been gradually absorbed by that of Brabant, passed with it to the house of Burgundy in 1406, and continued with it till 1477, when by matrimonial alliance it became united with Austria, and shortly after formed part of the dominions of Charles V. Through him Belgium was united with the Spanish monarchy. In 1714 it was retroceded to Austria, which held it until 1791, when the armies of the French Republic overrun the country, and parceled it out into nine departments.

30. On the downfall of Napoleon the allies united Belgium and Holland, under the king of the latter, into the Kingdom of the Netherlands. The union was never harmonious, and proved short-lived; and in 1830 the Belgians, taking advantage of the expulsion of the Bourbons from France, revolted and achieved their independence. Since this period they have enjoyed signal prosperity.

[*Weights, Measures, and Moneys.*—Same as in France.]

KINGDOM OF HOLLAND.

1. Holland or the Netherlands is situated between latitudes 50° 43′ and 53° 21′ north, and longitudes 3° 24′ and 7° 12′ east; and is bounded on the northwest and west by the German Ocean, on the east by Hanover and Rhenish Prussia, and on the south by Belgium. Its length north and south is about 160 miles, and its width from 60 to 120 miles. The area is computed at 13,610 square miles.

2. The Netherlands (or Low Country) form the most characteristic portion of the great plain of northwest Europe. The lowest part of this immense level, and that which has most recently emerged from the sea, is undoubtedly the country lying between the mouths of the Scheldt and the Ems. Within this distance the Rhine enters the sea through a number of arms and winding channels, which by no means represent the magnitude of the main stream; and the soil shows everywhere proofs of the struggle between the ocean and the river in the alternation of salt and fresh-water deposits. It also bears evidence to the fact, that great changes, effected by the floods of the Rhine or by eruptions of the sea, occurred frequently long after the country had become inhabited. It must have been the first object, therefore,

of the early inhabitants to secure the permanence of their territorial possessions. For this purpose they had recourse to embankments, and placing windmills on them exposed to the sea-breeze, they worked the pumps which drained the inclosed lands. But this drainage had a consequence which was doubtless not foreseen: namely, a general subsidence of the land, which, with the gradual elevation perhaps of the beds of the rivers, has made it necessary to continue the system of embankment to an unparalleled extent. In short, the Netherlands present to our view an artificially constructed country, some portions of which are 16 feet below the surface of the sea, and nearly all too low for natural drainage. The whole country is divided by dykes, some of them 60 feet high, which protect portions of land from the sea, lakes, or rivers. The inclosed lands are called *polders*. On the chief dykes are roads and canals also joining the rivers, and securing the enjoyment of those facilities of communication for which the Netherlands have ever been pre-eminently distinguished.



CATHEDRAL AT ROTTERDAM.

3. Among the principal features of the country are the wide estuaries west and east of the Scheldt, and of the Maas, which latter bear off also the waters of the Rhine; and the Zuyder-Zee, which was formed by an irruption of the sea in the thirteenth century, and now covers an area of 1,200 square miles. Between the mouths of the Maas and the entrance of the Zuyder-Zee, a distance of 75 miles, the coast is chiefly formed of sand-hills or downs, frequently 180 feet high, dreary and sterile to the last degree, and separating with their broad band the low fertile meadows on the one side from the ocean on the other. In a line with these downs, beyond the mouth of the Zuyder-Zee, runs a chain of islands, namely, Texel, Vlieland, Schelling, Ameland, etc., which seem to indicate the original line of the coast before the ocean broke in upon the lowlands. The Lauwer-Zee, a deep bay on the confines of Friesland and Groningen, also owes its origin to an irruption of the ocean; and again, the Dollart, a gulf near the mouth of the Ems, north of Groningen, was formed about half a century later than the Zuyder-Zee, and by a similar convulsion, which is said to have swept away seventy villages and a hundred thousand inhabitants.

4. The chief rivers of the Netherlands are the Rhine, the Maas or Meuse, the Scheldt, the Yssel, the Vecht, and the Hunse. The Rhine is above half a mile wide where it enters the Kingdom: it soon divides—the south and principal arm taking the name of Waal and uniting with the Maas, while the north arm, communicating with the Yssel, takes the name of Leck, a branch from which named the Kromme (or crooked) Rhine winds by Utrecht to the Zuyder-Zee, while another very diminished stream, the Old Rhine, flows from Utrecht by Leyden to the sea at Katwijk. The Old Rhine was formerly choked up with sand a little below Leyden; its present channel to the sea is recent and artificial. The Maas or Meuse, entering the Netherlands from Belgium, receives the Roer. Of the Scheldt, only the mouths, the east and the west, lie within the Dutch boundary. The Yssel and Vecht, flowing from Germany, both enter the Zuyder-Zee at no great distance asunder—the former of which is navigable up to Deventer, and the latter to Zwolle. The Hunse, rising in the Bourtang morass, flows through Groningen to the Lauwer-Zee.

5. The canals of the Netherlands are collectively more important than the rivers, on which, indeed, they depend; but they are so numerous as to defy detailed description. The North Holland Canal is the chief work of this kind, and allows the largest ships to pass between Amsterdam and the Helder, a distance of 40 miles, so as to avoid the intricate navigation of the Zuyder-Zee. The Winschoten Canal, also for ships, 18 miles long, connects the Dollart with Groningen; the Damster-Diep, of equal magnitude, runs from Groningen to the sea, at Delfzyl. Harlingen, on the Zuyder-Zee, is also connected with Groningen by a great canal which passes by Franeker and Leeuwarden. The Nieuwer Sluis unites Utrecht with Amsterdam, while the latter city communicates with Rotterdam by a canal which touches at Haarlaem, Leyden, and Delft, passing also near the Hague. The Dutch canals are all navigable, and in winter their frozen surface offers convenient roads.



DUTCH BOATS.

6. The climate of the Netherlands is, from the maritime exposure and originally marshy character of the country, extremely humid, changeable, and disagreeable; violent winds with varying temperature frequently blow from southwest or northwest, and heavy sea-fogs are driven in, which injure vegetation. The mean temperature is not lower than in like latitudes in the British Islands, and the quantity of rain (26 inches) is somewhat less; but the winter is much more severe, and the sky is almost always overcast. The bright days hardly exceed 40 in the year. Although to strangers cheerless and distressing, the noxious qualities of the climate are unable to cope with the counteracting influence of good food and clothing and habitual cleanliness; and the Dutch, giving particular attention to these domestic safeguards, frequently attain to a green and healthy old age.

7. As might be expected, the Netherlands have no abundance of those natural resources which distinguish many countries. The various alluvial strata offer no minerals of any value except a little bog-iron ore, brick clay, and potter's clay. Wild animals are few and unimportant. Migratory water-fowl visit the lakes and rivers in great numbers, but the stork, protected by popular feeling in its favor, is the only undomesticated bird so frequent as to be characteristic of the country. Fish of various kinds are taken in the rivers, lakes, and on the coasts. The flora of the Netherlands is equally limited. Nature has given nothing in the way of woods, or rank thickets, or flowery fields. But art, on the other hand, has done wonders; and, as if to show how care and industry triumph over natural disadvantages, this sterile country exports garden-seeds and choice flowers in large quantities to soils and climates more capable of producing them.

8. The Dutch, taken collectively, form the most civilized portion of the European population. What they want in social brilliancy and attraction is amply compensated for by the general diffusion among all classes of good habits and ample instruction; and among the wealthier classes there is no want of solid and extensive learning. They are lineally descended from the Batavi, Frizii, and other original nations. Their language is the low Dutch, as contradistinguished from the high Dutch or German. The Dutch is softer in sound than the German, and possesses fully the immense resources of that language. There is no European tongue which borrows so little from the Greek and Latin. Its literature chronicles the names of many great writers, as Erasmus, Grotius, Boerhaave, etc.

9. Gardening and agriculture have attained in this country a high degree of perfection; yet the latter holds a subordinate place in rural industry. Wheat of good quality is grown only in favored portions of the southern provinces. Rye, oats, and buckwheat, with horse-beans, beet, madder, and flax, are more common crops. Culinary vegetables are cultivated largely. But it is in stock and dairy produce, in particular, that the rural industry of the Dutch shows its strength. Their horses are remarkable for size and power, and are much sought after, and in the number and excellence of their horned cattle they are quite unrivaled. In 1851 the numbers were—horses 237,127, horned cattle 1,248,893, sheep 811,643, and pigs 269,657. The poultry-yard is also a source of wealth, and bee-culture is actively carried on.

10. Manufactures, although a flourishing industry, have never been a predominating interest. The linen and paper of the Netherlands, however, have long held the first rank—the principal bleach-greens are at Haarlaem, and the paper-mills at Zaardam. The manufacture of woolen cloth centers in Leyden, Gouda, and Utrecht, the last place being celebrated also for its silk velvet and tobacco pipes. The distilleries of Schiedam are well known. The Dutch are also noted for their leathers, refined sugars, and many other articles that enter into their foreign trade.

11. The foreign commerce of the Netherlands, seaward and overland, is large and valuable. In 1854 the exports were valued at 308,780,801 florins, and the imports at 356,484,519 florins. The principal nations trading with Holland are named in the following table, which also exhibits the amounts given and taken by each:

Belgium		Exports	30,469,436	Imports	41,446,556	Total	71,915,982
France		"	13,074,585	"	12,171,902	"	25,246,487
Great Britain		"	75,194,278	"	99,761,865	"	174,956,143
Java, etc	Dutch colonies.	"	29,402,129	"	74,833,223	"	104,235,352
Surinam	Dutch colonies.	"	1,501,934	"	4,384,095	"	5,886,029
Curacoa, etc	Dutch colonies.	"	267,319	"	135,614	"	402,933
United States		"	5,136,923	"	7,545,043	"	12,681,966
Russia		"	87,448	"	9,254,337	"	9,341,785

—and Brazil, Bremen, China, Denmark, Hamburg, Hanover, Naples, Norway, Sweden, Austria, Spain, Turkey, Greece, etc., to smaller values. The entrances amounted to 7,502 vessels (1,244,168 tons), and the clearances to 7,824 vessels (1,284,681 tons). The merchant navy numbered 2,156 vessels, measuring 519,016 tons.

12. Internal trade and communication give employment to 5,600 trekschuyts or packet boats, and 1,500 barges; and facilities for the transit of goods, etc., are afforded by a railroad from Rotterdam, through the Hague and Haarlaem to Amsterdam, and thence through Utrecht to Arnheim, and this ultimately connects with the Prussian lines on the Rhine. The value of the trade between the Netherlands and the German Customs' Union in 1854 amounted to —exports 116,435,236 florins, and imports 68,819,497 florins, which amounts are included in the aggregate value of commerce above stated.

13. The Netherlands or Holland is a constitutional monarchy, by the fundamental law of which the executive is exercised, through responsible ministers, by the king, who also shares in the work of legislation. The states-general or legislature consists of two chambers—the upper with 23, and the lower with 55 members—which assembles for business at The Hague (S'Gravenhaag), the capital, or more properly the royal residence. The members of the upper chamber are named by the king for life, and those of the lower chamber are elected by the provincial states or legislatures, the functions of which are otherwise essentially local. Luxemburg is governed by a viceroy, with a separate ministry and courts of justice.

14. The public revenue in 1855 amounted to 73,299,276 florins, and the expenditures to 73,740,661 florins. Two thirds of the revenue is derived from direct and indirect imposts and excise, and a fifth of the whole from the colonial treasuries; and of the expenditures nearly one half is accounted for in the administration of the public debt, and a third of the remainder is disbursed on account of the army and navy. The national debt amounted to 1,192,110,830 florins, on which the annual interest is 34,858,825 florins.

15. The army in 1855 consisted of 1 regiment of grenadiers, 8 of infantry, 5 of cavalry, 5 of artillery, and a corps of engineers, etc., in all 58,647 effective men. The navy consisted of 84 vessels, carrying 2,000 guns, and 58 armed boats, carrying 174 guns. Of this number 5 were ships of the line, and 19 steamships. The marine force in active service amounted to 6,180 men.

16. The majority of the population of Holland are Protestants of various denominations, the Roman Catholics forming a little more than one third the whole. The exact numbers of

CENTRAL EUROPE

SCALE OF STATUTE MILES.

0 20 40 80 120 160

100 Geographical or 115.26 Statute Miles, to one inch.

EXPLANATION.

Capitals ..... ✻ BERLIN
..... " of Provinces. ⊙
Principal Towns. ..... ○ Vienna
Rail Roads. .....
Battle Grounds ..... ⚔ 1805

LONGITUDE EAST FROM GREENWICH.

LONGITUDE EAST FROM WASHINGTON.

Entered According to Act of Congress in the Year 1858 by J.H. Colton & Co. in the Clerks Office of the District Court of the United States for the Southern District of New York.

each religious sect in the Kingdom in 1855 were—Protestants 1,834,924, Catholics 1,164,148, Armenians and Greeks 41, Jews 58,518, and 1,369 religion unknown. The greatest toleration has always existed in regard to religion, and a remarkable moderation is observed among the several existing sects.

17. Education is well conducted, and very generally diffused. In 1852 there were in the Kingdom 3,295 schools for popular instruction, attended by 361,015 pupils, being equal to about half of the population between the ages of 5 and 15 years, and three universities—at Leyden, Utrecht, and Groningen—attended by 1,119 students; besides numerous academies and schools of an intermediate character. The Dutch possess a large number of splendid libraries, and many scientific and literary associations. The benevolent institutions comprise numerous hospitals for the sick, infirm, and orphans, societies for the public good, and several pauper colonies. Mendicity is interdicted. The periodical press consisted of 125 monthly and 14 weekly issues.

18. The Kingdom is divided into eleven provinces, and Luxemburg may be said to constitute a twelfth. The extent of each and population in 1855 were as follows:

Provinces.	Area. sq. m.	Population.	*Capitals* and Chief Towns.
Brabant	1,985....	408,996....	*Hertogenbosch* (Bois-le-Duc), 24,730; Tilburg, 13,348; Breda, 12,692.
Guelderland. ...	1,970....	392,371....	Nijmwegen, 21,182; *Arnhem*, 16,758; Zutphen, 12,229; Nieuwkerk, 5,302.
Holland, South .	1.174....	602,236....	Rotterdam, 88,812; The HAGUE, 72,467; Leyden, 35,984; Dortrecht, 20,991; Delft, 17,506; Scheidam, 11,297; Vlaardingen, 7,201.
Holland, North..	959 ...	534,772....	*Amsterdam*, 255,520; Haarlaem, 25,778; Zaardam, 11,139; Hoorn, 8,668
Zealand.....	673....	164,787....	*Middelburg*, 15,934; Flushing, 7,725; Zierikzee, 6,896.
Utrecht	537.. .	157,112....	*Utrecht*, 41,176; Amersfort, 13,162.
Friesland	1,266....	265,302....	*Leeuwarden*, 24,505; Harlingen, 8,591; Sneek, 7,750.
Overyssel	1,286....	231,505....	*Zwolle*, 17,822; Deventer, 14,378; Kempen, 7,208.
Groningen	886 ...	201,448....	*Groningen*, 33,695; Delfzyl, 1,704.
Drenthe.....	1,032....	90,578....	Meppel, 6,420; *Assen*, 2,608.
Limburg.....	852....	212,120....	*Maestricht*, 25,241; Weerdt, 6,285; Venloo, 7,179.
Total Holland	12,620...	3,261,227	
Luxemburg	990...	189,480....	*Luxemburg*, 11,143.
Grand Total.	13,610...	3,450,707	

19. The Hague (S'Gravenhaag), the capital of the Kingdom, is situate on a branch of the Leyden and Rotterdam canal, and about four miles from the sea, in latitude 52° 04′ 20″ north, and longitude 4° 18′ 41″ east. It is inclosed by a moat crossed by drawbridges, and many streets are intersected by canals bordered by rows of trees. All the principal edifices, namely, the king's palace, the palace of the Prince of Orange, and the Binnenhof, the latter of which accommodates the states-general, are in the Vyverberg, or great square of the fashionable quarter. The royal library is said to contain 100,000 volumes; and here are many learned associations and galleries of art and paintings. Several manufactures are carried on in the city, and it has a considerable trade, facilitated by its connections by canal and railroad. About two miles southeast of the city stood the castle of Ryswick, memorable for the treaty of 1697, which was signed therein.

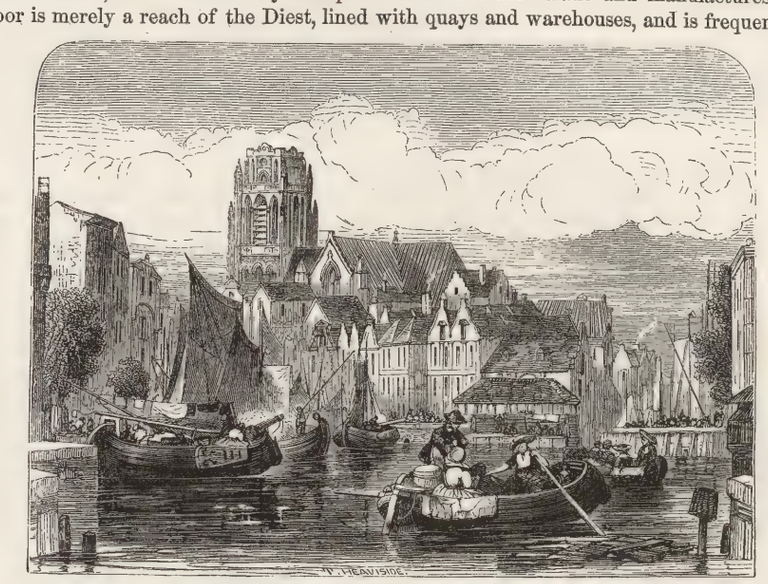


ROYAL PALACE.

20. Amsterdam, the principal city of the Kingdom, stands on the Amstel at its entrance into the Y or Ai, and is divided by that river into two parts. Latitude 52° 22′ 05″ north, and longitude 4° 53′ 02″ east. It is built on piles, and intersected by numerous canals, which form 90 islands communicating by 290 bridges, and along these waterways the principal streets are built. Amsterdam may be justly considered one of the first commercial cities of northwestern Europe, although it has successful rivals in Antwerp and Rotterdam; and it has also numerous and valuable manufactures. It is the seat of the administration of the marine, of which the magazines and building-yards are very extensive; and its well-stocked storehouses attest the riches of a city that has long possessed the commerce of the world. It is now connected by railroad with the principal cities. The vicinity is truly charming, being for miles around one vast garden blooming with every variety of flowers, of which the Dutch flora is so redundant.

21. Haarlaem or Harlem, 12 miles west of Amsterdam, is a large but thinly peopled town. It has extensive manufactures of cotton, velvet, silk, and linen, and a celebrated Greek and Hebrew type-foundery; and is the center of the important Dutch trade in flowers and flower-seeds, raised in extensive gardens on the south side of the city. Canal and railroad communication is open to Leyden and Amsterdam. Leyden is a very ancient city upon the Old Rhine, about six miles from the sea. It is surrounded by walls and ditches opening to the country by eight gates, and is, like all Dutch cities, much intersected by canals. Leyden is noted for its university, and its many learned and scientific associations. West of the city a cut has been made to carry the Rhine forward to the sea, which it now enters by a sluice near the village of Katwijk.

22. Rotterdam, at the confluence of the Rotte with the Meuse, is, next to Amsterdam, the principal commercial city. The largest vessels not only navigate the river, but are brought into the very heart of the city by canals, and its communications, both by canal and railroad, are highly advantageous to its trade. Besides its commerce, Rotterdam has very large manufactures, and is extensively engaged in ship-building. Middelburg is situated near the center of the island of Walcheren, and communicates with the sea by a large navigable canal. It is a busy, commercial place. Flushing (Vlissingen), on the south side of Walcheren, is a strongly fortified town, with a fine harbor, magnificent docks, vast building-yards, and extensive magazines. Bois-le-Duc, at the confluence of the Aa and Dommel, which here form the Diest, is a fortified city and place of considerable trade and manufactures. The harbor is merely a reach of the Diest, lined with quays and warehouses, and is frequented by



CHURCH OF ST. LAURENS, ROTTERDAM.

numerous vessels. Breda, on the Merk, is a strongly fortified city, and was formerly the seat of the royal military academy, and has yet a great arsenal and various other buildings required in a fortress of the first order. Manufactures of various kinds are carried on, and the city, from its central position, and water communication with other provinces and the sea, is frequented by vessels trading with all the principal towns.

23. Utrecht, on the Old Rhine, is important for its industry, its literary establishments, and its extensive general trade. The university possesses a rich library and a fine collection of objects of natural history. Groningen, on the Hunse, is a flourishing town, with an extensive trade in cattle, and several manufactures. It is also the seat of a celebrated university, and of a school for the deaf, dumb, and blind. Its port is accessible for large vessels by means of a canal, and it communicates by canals with Leeuwarden, Winschoten, and Delfzyl. Maestricht, on the Meuse, and on the Belgian frontier, is one of the strongest fortresses of Europe. It carries on an extensive transit trade with the neighboring kingdom, and has flourishing manufactures. About three miles from the town is Pietersberg, on which stands the fort of St. Pieter, and under which are extensive quarries covering a space of 12 miles by 6, with 16,000 passages, 20 to 50 feet high and 12 feet broad, supposed to have been excavated by the Romans. The galleries run generally at right angles, and are lined by many thousand massive pillars left to support the roof. Luxemburg is also one of the strongest fortified places of Europe. It is within Germany, and the King of Prussia has the right of forming part of its garrison.

24. Holland has very extensive colonial possessions. The principal are in the Eastern Archipelago, and embrace the whole of the island of Java; parts of Sumatra, Borneo, and the Celebes; a part of Papua or New Guinea, etc.; and in America, Surinam, and several small islands in the West Indies. These, especially the eastern colonies, are of considerable importance to the Dutch foreign trade.

25. The Batavi were already known to the Romans in the time of Julius Cæsar as a warlike nation. Their neighbors the Belgæ, even in that early age, were distinguished for that commercial enterprise which afterward exerted such an influence on the history of the Netherlands. It was in the year 9 B. C. that Drusus joined the Rhine and Yssel by a canal, and set the example of those great works which have changed the face of the whole country.

26. About the beginning of the fourth century the Batavi were joined by the Frisii, a people of kindred origin. The sixth century witnessed their subjugation by the Franks, and in the middle of the ninth they were incorporated into the empire of Charlemagne. Soon after this, and in accordance with the feudal spirit of the age, the country was parceled out into small principalities, viz.; the duchies of Gueldres, Brabant, Luxemburg, and Limburg; the marquisate of Anvers, the counties of Holland, Zeeland, Zutphen, Flanders, Artois, Hainault, and Namur, and the lordships of Utrecht, Overyssel, Groningen, Friesland, and Malines. Such was the origin of the Seventeen Provinces.

27. Among these petty states Flanders held the foremost rank, and when in the fourteenth century that county passed by matrimonial alliance to the house of Burgundy, the paramount authority in the Netherlands passed with it. In like manner these estates passed from the house of Burgundy to that of Austria, and Charles V. inherited the sovereignty of the Seventeen Provinces. But his son and successor, Philip II., having deeply offended the people by attempting to establish the Inquisition, seven of the states, namely, Holland, Zealand, Utrecht, Guelderland, Overyssel, Groningen, and Friesland, united in defense of their liberties, and formed a federal republic, at the head of which they placed William Prince of Orange, under the name of Staathouder. Their cause proved successful, and the merchants of Antwerp, at that time the greatest commercial city of Europe, fled before the hostilities of Philip, and took refuge in Amsterdam, which soon became an emporium of importance.

28. In the seventeenth century the Dutch were the most prosperous of European nations. Their first great reverse was the consequence of the French Revolution: their country was then invaded by the republican army, and was subsequently incorporated into the French Empire; their commerce in the mean time was annihilated, and their colonies seized by the British. On the downfall of Napoleon in 1814, the Prince of Orange, who had fled in 1805, returned and resumed his authority, and in 1816 was elevated to the rank of King of the Netherlands, with increased territories, extending over the present kingdom of Belgium.

At the same time restitution was made of the colonies, with the exception of the Cape of Good Hope, Ceylon, and Guayana. In 1830, immediately after the revolution which expelled the elder Bourbons from France, a revolt took place in Belgium, and after a short struggle the Dutch were compelled to evacuate that country. Belgium was then erected into an hereditary kingdom, and the present limits of the Netherlands were defined by treaty in 1833.

[*Weights, Measures, and Moneys.*—The Dutch denominations of weights and measures are almost identical with those of France, the old Dutch nomenclature being retained, thus:

Weights.—The "pond" (lb.) is equivalent to the kilogramme, and divided into 10 ons, 100 loods, 1,000 wigtjes, and 10,000 korrels.

Measures.—The "elle" (lineal) is equivalent to the metre, and divided into 10 palms, etc.; 1,000 elles = 1 migle; the "vierkante-bunder" (land) is the are, and the "kann" and "koppe" (liquid and dry) the litre. The kanne = 10 maatjes = 100 vingerhoeds; 100 kanns = 1 vat, and 100 koppen = 10 scheepels = 1 mudde, zak, or rasire.

Moneys.—Accounts are stated in the florin or gulden of 100 centimes. The coinage consists of 10 and 5 gulden pieces in gold, and of the gulden and its divisions and multiples in silver. The 10 gulden piece, weighing 6.7290 wigtjes, was minted from gold 900 fine, and hence = $4.00254. The gulden weighing 10 wigtjes is minted from silver 945 fine, and hence = $0.39286. The paper currency of the Kingdom consists of notes of 100 to 1,000 guldens, issued by the Bank of the Netherlands. No gold is now coined.

KINGDOM OF DENMARK.

1. Denmark, occupying the peninsula of Jutland and the island groups of Zealand and Funen, is situated between latitudes 53° 22′ and 57° 45′ north, and longitudes 7° 34′ and 12° 18′ east from Greenwich. It is bounded on the north by the channel of the Skager-Rack, which separates it from Norway; on the north-east by the Kattegat and Sound, which separates it from Sweden; on the east by the Baltic Sea and the Grand Duchy of Mecklenburg; on the south by Hamburg and the river Elbe, which separates it from Hanover; and on the west by the German Ocean or North Sea. The greatest length of the peninsula is about 300 miles, and in breadth from 30 to 110 miles. The area of the mainland is computed at 17,042 square miles, and that of the islands at 4,994 square miles; making the total area of the Kingdom 22,036 square miles.



EXCHANGE IN COPENHAGEN.

2. The Kingdom of Denmark has four natural divisions: a peninsula, which forms the province of Jutland, and is its northern and broadest point; an isthmus, by which this is connected with the mainland, and which constitutes the duchy of Schleswig; the duchies of Holstein and Lauenburg, in the south, which forms a part of Germany, and a group of islands, in the east, of which those of Zealand, Funen, Laaland, Falster, and Bornholm are the most considerable.

3. The whole of Denmark, with exception of the island of Bornholm, lies in the great northern plain of Europe. This plain lies so low as to be in some parts below the level of the sea, from which it is only protected by high and strong embankments. The west side of Holstein and Schleswig is thus characterized. Farther eastward the plain loses its monotonous flatness, acquires first an undulating and finally assumes a hilly appearance. All Denmark, with the exception alluded to, belongs to the latter formation—the greatest height (about 1,200 feet) being attained on the east side of the peninsula. On the west coasts the flats are dyked as in Holland. The coasts are deeply indented with bays and inlets, and in some places are steep and bold, though generally flat and sandy.

4. Denmark has no large rivers; the principal is the Eyder, which flows from an inland sheet of water in Holstein, and falls into the North Sea at Tonningen, where it is 800 feet wide. It forms the line between Holstein and Schleswig, and formerly separated Germany from Denmark proper. It is navigable through all its course, and by means of the Schleswig-Holstein Canal, water communication is effected across the peninsula. The Guden and Trave are the next important rivers, and are also navigable; all the others are insignificant streams. The Elbe flows along the south boundary of the Kingdom for about 80 miles. Brooks and streamlets abounds in the islands.

5. Lakes are numerous, particularly in Jutland and Holstein, and there are several in the larger islands. They are all small, none exceeding 5½ miles in length by 1½ in breadth, and few of them are even one half such dimensions. The most remarkable of the physical features of the country, however, are its lagoons or fiords—winding inlets of the sea that penetrate far into the land. The largest of these is the Lym-fiord in Jutland, which, entering the land in the Kattegat, near latitude 57° north, winds its way nearly through the peninsula, and is separated from the North Sea merely by a narrow strip, which storms have ruptured in one or two places. It expands here and there in its course into large bays studded with islands, and throws off branches in all directions. The other more remarkable fiords are Ringkjöbing and Nissim on the west coast of Jutland, and Mariager and Randers fiords on the east coast.

6. Besides these inland waters, the Great Belt separates the large islands of Zealand and Funen, and the Little Belt flows between the latter and the coast of Jutland and Schleswig. Intercourse is kept up between the several islands by ferries. Denmark is well supplied with excellent sea-ports—those of Copenhagen, Altona, Glückstadt, Kiel, Flensborg, Aalborg, Aarhuus, and Randers being the most frequented.

7. All the rocks belong to the upper series of the secondary and to the tertiary formations, and have been deposited from water in regular strata, with the exception of the remarkable hill of Gipsberg, near Segeberg, which is crystalline, and evidently of volcanic origin. The rock most fully developed is chalk, of which several distinct species have been recognized, particularly the white chalk, sometimes called Saltholm limestone, which, commencing in that island, is developed largely in Zealand and more partially in Jutland and Holstein; the coral chalk or Faröe limestone, which is rich in fossils; the blue chalk, a fine limestone, etc. Above the chalk is an extensive boulder formation, which stretches over a considerable part of the country, and contains some seams of lignite. Immediately above this, and sometimes mixed with it, are thick beds of clay and marl. Where it prevails, as in Zealand, Schleswig, Holstein, and the east of Jutland, the soil is generally fertile; but in other parts of the country, where it is supplanted or overlain by deep beds of sand, the country has an extremely desolate aspect. The larger islands of Zealand, Laaland, and Funen are fertile and well cultivated, their soils consisting chiefly of clay mixed with sand and lime. Woods of beech and oak occur in these islands, with partial tracts of heath and moor. Besides the minerals already noted, salt and fuller's earth are obtained in moderate quantities, and on Hitse, a bank on the west coast of Jutland, white and yellow amber are collected.

8. The climate is characterized by extreme humidity, and is remarkably temperate for so northerly a region. The winters are seldom severe, although occasionally, as in 1659, the Sound was sufficiently iced to allow of the passage of an army. On the other hand the heats of summer are great, sometimes excessive. The mean temperature of the year is 47° Fahr.—the greatest heat 89°. The shortest day is about 6½ hours, and the longest 17½ hours.

9. Few of the great forests with which the country was once covered now remain. Denmark is in consequence mainly dependent for her supplies of timber. The larger forests are now confined to the eastern side of Jutland, to Zealand, and to Lauenburg. The beech-tree constitutes four fifths of all the growing timber—the remainder is principally elm; and live oak, though once abundant, is now scarce, and woods entirely of oak are rarely met with. The alder abounds in marshy places, but birch, ash, willow, and aspen occur but seldom, and then only in isolated groups or singly. Pine forests have been planted in the northern parts of the Kingdom, and of late years the government has taken measures for the protection and management of the forests, with the intention of making them a source of national wealth.

10. Wild animals are at the present time found only singly, and in the most unfrequented places. The royal forests, however, are stocked with abundance of game, as deers, stags, roes, hares, etc. Wild fowl—including the eider-duck, so famous for its down—are numerous, especially on the islands along the Schleswig coast. The country abounds in domestic animals. Horses and cattle are reared in vast numbers, and both are excellent. Large flocks of sheep are also kept, and swine are reared to a great extent. Goats and asses are rare.

11. The population of Denmark is composed of Danes, Germans, Frises, and Angles, with some 70,000 or 80,000 Jews, etc. The Danes, the aborigines of the country, occupy the islands, Jutland, and a small part of Schleswig. The German population is settled in Holstein, Lauenburg, and the greater part of Schleswig. The Frises and Angles, two German tribes, inhabit the west coast of Schleswig and the islands of the German Ocean. The Jews, who are of German descent, are confined to Copenhagen, Altona, and a few other towns. The language of the country is the Danish, a mixed Scandinavian and Teutonic dialect, spoken by two thirds of the inhabitants, and almost exclusively in the islands and in Jutland. German is spoken by the greater part of the remaining third of the population, and over Schleswig, Holstein, and Lauenburg. In some of the southern localities, the Frisian is spoken. Learning and industry are distinguishing characteristics of the nation.

12. The geological formation of the country is not such as to furnish minerals, and hence, with the exception of building material, little is left for the miner to develop. The products otherwise than rock consist of clays useful in the arts, salt, and amber.

13. Although not particularly favored by nature, Denmark is yet pre-eminently an agricultural country. The kinds of grain most largely cultivated are barley, rye, wheat, and oats. Barley, the oldest cereal of the north, is grown chiefly in Zealand, and is largely used in brewing beer, the common beverage of the country. Rye, the principal product of the soil, is grown throughout the peninsula and the larger islands. From this grain the greater part of the bread used in Denmark is made. Wheat is grown chiefly in the marshes on the east coast of Schleswig and Holstein. Oats are raised in almost every part of the Kingdom. Of all these grains large quantities are exported. But cattle-breeding, grazing, and the dairy engage the greatest share of the attention of the Danish farmer, and considerable attention is also given to the rearing of sheep and hogs. In the duchies and the island of Funen large quantities of honey are produced. The agriculture of the country, however, has great drawbacks, and improvement is retarded by the want of capital, the minute division of property, by oppressive dues and services, and, not least, by the want of good roads.

14. Denmark has attained a reputation in several branches of manufacturing industry, as the woolens and earthenwares of Jutland, the wooden clocks of Bornholm, and the stoves of Copenhagen. Randers and Odense were formerly celebrated for the manufacture of gloves. The domestic manufactures include yarns, knitted and woven woolen goods, linen fabrics, earthenwares, wooden shoes, etc. The knitted woolen jackets of Jutland were formerly

largely exported. There are numerous iron founderies. Paper manufacturing is also a large branch, and among the other prominent manufactures are carriages, glass, musical instruments, tobacco, sugar, candles, soap, etc. Several of the manufacturing establishments of Denmark belong to the government: among these are a royal porcelain manufactory in Copenhagen and a royal cloth manufactory in Irsseröd, the latter of which supplies cloth for the army.

15. The commercial exports consist almost wholly of raw produce, as grain, livestock, skins, oil, feathers, eider-down, etc., the whole of which in 1855 were valued at 39,833,422 thalers. The imports are iron, timber, coals, wine, salt, tobacco, sugar, coffee, tea, etc., and manufactured goods, in all to the value of 63,339,174 thalers. In the same year 40,919 vessels entered and 38,644 vessels cleared; and the shipping owned in the Kingdom amounted to 5,154 sailing and 37 steam vessels, in the aggregate 104,490 tons. The countries having the largest commercial connection with Denmark are England, Sweden and Norway, Hamburg, Lubec, the Danish West Indies, Iceland, Greenland, Russia, Prussia, etc.

16. The Danish fisheries are extensive and valuable. The principal fishing-ground is between the mouth of the Schlei and the peninsula of Arnis. Next to the herring, the turbot, torsk, and salmon are the most abundant sorts of fish. Oyster-banks occur on the east coast of Jutland, near its north extremity, and near the island of Lessöe. Fish ponds, once very general over the country, are now chiefly confined to Holstein. The seal fisheries of Denmark are considerable, the principal station being the island of Anholt.

17. The internal trade of the country is large, and extensive exchanges are transacted at periodical fairs. The roads, however, except in the islands, are not well kept, and railroads have as yet been introduced to only a limited extent. Of the latter, two lines have been completed: one on the mainland from Altona to Kiel, with branches to Schleswig and Flensborg, and one on the island of Zealand from Copenhagen, by way of Roeskilde to Korsoer on the Great Belt. It is to its extensive water-lines by arms of the sea and the fiords that Denmark chiefly owes its great advantages of intercommunication, and by these the greater portion of its inland commerce is carried on. There are three channels of connection between the North Sea and the Baltic, independently of the passage round the Skawe by the Skager-Rack and Kattegat. These are the canal of Stecknitz, which unites the Trave with the Elbe; the canal of Kiel, which connects the Eyder with the Baltic; and the Lymfiord, which reaches across the peninsula of Jutland. But these are only capable of being used by the smaller class of vessels. Ships of large size enter the Baltic through the channel of the Sound, and until lately Denmark exercised the right of levying a toll upon all vessels using that passage. In 1855 the toll collected on 15,787 vessels amounted to 2,426,722 thalers.

18. The government is a constitutional hereditary monarchy. By the charter adopted in 1848, it is declared that the executive power is in the king alone, and the legislative in the king and diet conjointly. The diet consists of the Landesthing and the Volksthing—the former a kind of senate or upper house, and the latter a house of deputies. The right to vote is granted to every householder who has reached his 30th year. The members of the Landesthing are elected for eight years, and those of the Volksthing for three years. The duchies of Schleswig and Holstein have reserved their own separate institutions and laws; and several districts and towns have also their peculiar laws. The principal tribunal is the supreme court of Copenhagen, and there are in Schleswig and Holstein separate royal courts of appeals—the first at Flensborg, and the latter at Kiel. Courts of conciliation have long been established throughout the country.

19. The revenue common to the whole Kingdom, according to the budget for the year ending 31st March, 1856, would amount to 14,661,321 thalers, and the expenditures to 18,142,680 thalers, leaving a deficit of 3,481,359 thalers. The great bulk of the revenue is derived from the Sound dues and customs duties, and the expenditures are chiefly made on account of the public debt, and for the army and navy, pensions, etc. Besides the above there are special treasuries for the Kingdom proper and the duchies of Schleswig and Holstein, the receipts and expenditures of which were estimated at the following sums in thalers:

	Kingdom.	Schleswig.	Holstein.
Revenue	5,235,300	1,288,550	1,456,800
Expenditures	5,067,435	1,511,402	1,662,711

These revenues are derived chiefly from internal taxes, and the expenditures are applied to the local administration, and a quotient part from each (in the proportion of 60, 17, and 23) to make up the deficiency in the receipts of the national treasury. The national debt amounted in 1856 to 119,600,000 thalers.

20. The land forces of Denmark on the peace establishment consist of 25,000 men, and in time of war of 75,169. The army is recruited by conscription. The navy consists of 5 ships of the line of 66 to 84 guns, 6 frigates of 44 to 60 guns, 4 corvettes of 14 to 28 guns, 4 brigs of 12 to 16 guns, 1 bark of 12 guns, 3 schooners of 1 to 8 guns, 1 cutter of 6 guns, and 9 steamers of 1,400 horse power, and carrying 85 guns. This is exclusive of the coast flotilla, which consists of 86 small vessels. In all, the royal navy in 1856 consisted of 119 vessels, carrying 931 guns.

21. The Lutheran is the church established by law; but all other religions, including the Jewish, are tolerated; but Jews can not hold seats in the legislature—otherwise they enjoy equal civil, religious, and political rights with other sects. There are nine bishops of the national church—four for the duchies, four for Jutland, and one for the islands.

22. Few countries, in proportion to their extent, have done so much for education, literature, and art as Denmark. At the head of the educational institutions stands the University of Copenhagen, and the Holberg Academy at Soröe. In the provincial towns there are 20 schools in which the learned languages are taught, and 130 town, free, and upper general schools, besides a number of private establishments; and the number of Volks-schulen or common schools in the Kingdom is 2,504. For the education of teachers there are five normal schools. Through these instrumentalities education is very generally diffused among the people.

23. The provinces of the Danish crown are Jutland and the Islands, which together form the Kingdom of Denmark proper and the three duchies of Schleswig, Holstein, and Lauenburg—the two latter of which form part of Germany, and conjointly constitute one of the members of the German Confederation. The different provinces are subdivided into amts or bailiwicks. The provinces, with their area and population, etc., are as follows:

Provinces.		Area, sq. m.	Popula. (1855).	*Capitals* and Chief Towns.
Zealand and Moen	Denmark	2,848	543,757	COPENHAGEN, 129,695; Elsinore, 8,107, Roeskilde, 1,483.
Bornholm	Denmark	223	28,949	*Ronne*, 4,717.
Funen and Langeland	Denmark	1,286	196,811	*Odense*, 11,122.
Laaland, Falster, etc.	Denmark	648	84,096	*Maribo*, 1,637.
Jutland	Denmark	9,785	646,237	Aalborg, 8,712; Aarhuus, 8,431; Randers, 7,912; *Viborg*, 5,826.
Schleswig	Duchies.	3,548	395,795	Flensborg, 17,209; *Schleswig*, 12,097; Tonningen, 2,836.
Holstein	Duchies.	3,294	523,528	Altona, 43,937; Kiel, 16,178; Rendsborg, 11,167; *Gluckstadt*, 6,219.
Lauenburg	Duchies.	404	49,475	Lauenburg, 4,086; *Ratzeburg*, 3,088.
Total		22,036	2,468,648	

24. Copenhagen, the capital of the Kingdom, is situate on the east coast of Zealand, where the small island of Amak forms a superb harbor. Latitude 55° 40′ 09″ north, and longitude 12° 34′ 07″ east. It is one of the finest cities of Europe, and though the streets are narrow, they are adorned with many noble buildings, such as royal palaces, churches, hospitals, the Exchange, etc. It contains also a university. The royal library has a magnificent collection of 400,000 books, and the university library of 120,000. The manufactures are various, if not large; and its commerce is accommodated with extensive docks. Copenhagen is strongly fortified. Roeskilde, the ancient capital, 20 miles west-by-south of Copenhagen, is a small town, but contains a splendid cathedral, a rich library, and the tombs of the royal family. Elsinore is situated on the west of the Sound, and at its narrowest part. The castle of Kronborg commands the passage. In the vicinity is the royal country palace of Marienlyst. Elsinore, however, is chiefly noted as being the place where the Sound duties were formerly levied on vessels entering and clearing the Baltic.



VIEW OF COPENHAGEN.

25. Altona, in Holstein, on the north bank of the Elbe close to Hamburg, is the second city of the Kingdom. The trade and manufactures of the city are extensive, and by special privileges the government has in some measure attracted to its port the commerce previously monopolized by Hamburg, and the railroads lately completed in the neighborhood have added greatly to its importance. Altona has four dock-yards. Its harbor is only a winter haven of the third class, having a depth of water from 7½ to 14¾ feet, but the largest merchantman, once over the bar, can unload at warehouses on the banks of the Elbe, especially at the west end of the city, where the ordinary depth in the river is from 15 to 25 feet. Kiel, also in Holstein, is an important town, and has several manufactures, and a large trade, especially in grain. It communicates with the Baltic through the Schleswig-Holstein Canal, and with Altona by railroad. Glückstadt, the capital of Holstein, is a free port.

26. Ratzeburg, the capital of Lauenburg, is located on a small island in the lake of Ratzeburg, but has no advantages for trade. Lauenburg, on the Elbe, at the mouth of the Delvenaue and on the Stecknitz Canal, has an extensive transit trade, and the right of levying dues on vessels passing up and down the Elbe.

27. Schleswig, the capital of the duchy of the same name, at the head of the Schlei, is a busy trading town with considerable manufactures, but its harbor is accessible only to small vessels. Rendsborg, on the Baltic, and Tonningen, at the mouth of the Eyder, are two important sea-ports. Aalborg, Aarhuus, and Randers, in Jutland, are also sea-ports, and there are many other considerable places.

28. The colonial possessions of Denmark consist of—the Faroe Islands in Europe, Iceland between Europe and America, and Greenland in North America; and also the islands of St. John, St. Thomas, and St. Croix in the West Indies. These, except the Faroe Islands, are described elsewhere. These islands lie in the North Atlantic, about 170 miles northwest of the Shetland Islands, between latitudes 61° 21′ and 62° 20′ north, and are intersected centrally by longitude 7° west. In all there are 22 islands, of which Stromsoe is the largest, and which have an aggregate area of 510 square miles, and contain 8,137 inhabitants. The whole group is mountainous, and the coasts deeply penetrated. The inhabitants are chiefly occupied in fishing and sheep-feeding, but also in ordinary agriculture, cultivating barley, potatoes, turnips, etc., the only useful plants which thrive in this northern climate. The people, who are of Norwegian origin, are represented in the national legislature by a deputy named by the king. The local capital is Thorshavn, in Stromsoe.

29. The three kingdoms of Denmark, Sweden, and Norway were anciently called Scandinavia. At a remote period Denmark was divided into a number of petty states, inhabited by a fierce and warlike people, whose principal occupation was piracy. On the decline of the Roman Empire they began to make themselves known. In 832 they invaded England and set up two kingdoms; and two centuries afterward Canute completed its conquest.

30. After the extinction of the native princes the Danes elected Christian I. count of Oldenburg in 1488, from whom the present royal family descends, and from whom in modern times Russia, Sweden, and Oldenburg have received their rulers. He connected Norway, Schleswig, and Holstein with Denmark. In 1726 Rantzau, in 1761 Holstein-Plön, and in 1773 Holstein-Gottorf were annexed; and in return for the latter, Oldenburg and Delmenhorst, acquired in 1667, were ceded to Russia.

31. Denmark, siding with Napoleon during the continental war, had her capital bombarded by the British in 1807, and her territory occupied in 1813 by the powers united against France. In 1814 she concluded a peace with England and Sweden, and entered into an alliance against France. But she was obliged to cede Heligoland* to England, and Norway to Sweden. Peace was concluded with Russia in the same year. In 1815 Swedish Pomerania and Rügen, which had been acquired from Sweden in exchange for Norway, were

* *Heligoland*, or Holy Island, is situate in the North Sea (latitude 54° 11′ 37″ north, and longitude 7° 53′ 12″ east), and covers an area of 5¼ square miles. Its importance to Great Britain in time of war is considerable, whether as a naval depôt or commercial storehouse. The interior is partially cultivated; but generally the island is rocky, presenting a bold front to the sea. Population 2,236. At the present day it is much resorted to for sea-bathing.

ceded to Prussia in exchange for Lauenburg; and in the same year the king entered the German Confederacy with Holstein and Lauenburg.

[*Weights, Measures, and Moneys.*—The following are the denominations:

WEIGHTS.—The pond or lb. of 16 unzen, 32 lod, or 128 quentin = 500 grammes or 1.10243 lb. avoirdupois: 320 = 20 lisponds = 1 shippond, and 5,200 ponds = 1 last. The old pond or lb. = 499.13 grammes or 1.10051 lb. avoirdupois. At Altona the Hamburg lb. is used. The mark (gold and silver weight) = 235.4 grammes or 3,633 grains Troy

MEASURES.—The ale or ell of 2 fuss or 24 zollen = 627.26 millimetres or 0.68590 yard; 12,000 ales = 1 Danish mile or 4.67698 English miles. A tun or acre = 14,000 square ales. The kanne (liquid) = 1.93058 litres or 0.51142 gallon; 77½ kannes = 40 stubchen = 4 anker = 1 ahm, and 6 ahms = 4 oxhoft = 2 pipen = 1 fass. The viertel (dry) = 34.75 litres or 0.98617 bushel; 48 viertels = 12 toendes = 1 last of corn.

MONEYS.—Accounts are stated in rigsbank dalers of 6 marks or 96 skillings, and sometimes in Hamburg marks banco; 3 Hamburg marks banco = 2 rigsbank dalers or 1 old specie daler. The Frederick d'or or 5 thaler piece is minted at the rate of 345 to 24 Cologne marks weight of metal 21½ carats or 895⅓ fine, hence it weighs 102.5 grains Troy, and is valued at $3.94814. The rigsbank daler is minted at the rate of 18⅓ to the Cologne mark of fine silver, and hence is worth $0.5263.]

KINGDOM OF PRUSSIA.

1. PRUSSIA lies between latitudes 49° 12′ and 55° 53′ north, and longitudes 5° 56′ and 22° 50′ east; and is bounded on the north by Hanover, Denmark, Mecklenburg, and the Baltic Sea; on the east by Russia and Russian Poland; on the south by Austria, the Saxon States, Hesse-Cassel, and Rhenish Bavaria, and on the west by France, Belgium, and Holland. It consists of two large territories, completely isolated from one another, and of several small territories, also isolated; and therefore no exact estimate can be made of its absolute length and breadth. A straight line drawn between its northeast and southwest extremities measures about 800 miles, and the greatest breadth, which occurs near the 18th meridian, is about 420 miles. The area of its whole surface is estimated at 108,447 square miles.



SCHLOSS OR ROYAL CASTLE, BERLIN.

2. The eastern, or more extensive of the divisions above referred to, may be described generally as a vast plain, considerably elevated, in the south and southwest, and thence descending, at first rapidly, and afterward very gradually, toward the Baltic and the German Ocean. The loftiest summits are on the south frontiers of Silesia, where the Riesengebirge and the Sudetes form the boundary between it and Bohemia and Moravia, and send northward several ramifications without attaining a very lofty height. In the southwest, the only other quarter which can be considered mountainous, ramifications of the Thuringian Forest and of the Harz appear, and cover a considerable portion of the south part of the province of Saxony. The large space extending between the north foot of these mountain districts and the shores of the Baltic does not present the appearance of a monotonous flat, but though generally low and tame, heathy and swampy, is often finely diversified and even rich in scenes of rural beauty. Ultimately, however, on approaching the sea, the general level becomes so low that large tracts are saved from inundation only by low sand-hills or banks of gravel. Behind these, extensive lagoons or haffs have been formed, communicating with the sea by narrow outlets, and giving to the shore one of its characteristic features. The whole coast, extending about 500 miles, is flat and uninteresting; no bold cliffs appear, and the water shallows so much that good harbors are extremely rare. The only large gulf is that of Danzig. Toward the northwest the monotony of the coast is broken by the island of Rügen, which in the north terminates in the hill of Arkona, about 300 feet high, and overhanging the sea.

3. This portion of the monarchy belongs chiefly to the basins of the Baltic and German Ocean. The water received by the latter is comparatively small, and the principal rivers that drain it are the Elbe and its affluents, the Elster, Havel, Mulde, and Saale. Minute portions of the west of the province of Saxony belong to the river system of the Weser and the Werra. The share of drainage received by the Baltic constitutes about five sixths of the whole, and is conveyed to it by a number of large and independent streams, the most important of which is the Oder, the only large river that can be considered wholly Prussian. Next in importance to the Oder, and communicating with it by a canal between the Braa and the Netze, is the Vistula. Between these two large rivers many smaller streams, among which the Rega, Persante, Wipper, Stolpe, Lupow, and Leba may be mentioned, carry their waters directly to the sea, and thus form independent basins. To the east of the Vistula the first river of importance is the Passarge, and after it, still farther east, the Pregel, with its tributary Alle. The Niemen or Memel, the last river on the east, has only a small part of its lower course in Prussia, but penetrating far into Russia, forms one of its most important outlets. Lakes abound in almost every province, but chiefly in Prussia, Pomerania, and Brandenburg. The large lagoons of Pommerische-Haff, Frische-Haff, and Curische-Haff, with many others, line the coast. The inland lakes are far too numerous to admit of specification, and in extent are individually very small.

4. In the mountain districts of the east the loftier summits are composed of granite, gneiss, mica-schist, porphyry, diorite, etc. These are most largely developed in the mountains of Silesia and in the Harz Mountains. Transition rocks, graywacke, clay-slate, and limestone extend along the frontiers of Austrian Silesia into Prussian Silesia as far as the Oder, and rocks of the same formation occupy a considerable part of the flatter districts of Saxony. Secondary formations, composed of mountain limestone and various strata of the carboniferous system, occur in Silesia, chiefly along the frontiers of Cracow and Russian Poland, and among the mountains toward the Riesengebirge. Rocks still higher in the series, and including the new red sandstone, extend from Poland to the Oder, and also occupy other extensive tracts, covering part of the terraces of the Thuringian Forest, and stretching along the foot of the Harz to the banks of the Saale, Elster, and Elbe. Chalk and its cognates occur in many localities, and in the island of Rügen make the romantic cliffs of Stubbenkammer and Arkona. Tertiary formations overlie the chalk, and include seams of lignite.

5. The climate varies considerably, and in accordance with latitude and surface, but is nowhere very extreme. The average of places between the highest and lowest latitudes gives a mean annual temperature of 52° Fahr. On the Baltic coast storms are frequent, and the quantity of rain is much greater than in the interior.

6. The western division of the Kingdom, consisting of Westphalia and the Rhine province, differs so much from the eastern as in many respects to present a striking contrast to it. This division is much more finely diversified. Its mountains, though far less elevated, are not confined to a particular locality, but stretch across the country in all directions, and form numerous valleys, one of which, that of the Rhine, here occupies no inconsiderable portion of the whole surface, and in point of fertility and beauty is not surpassed. In the north a mountain range of moderate elevation, forming a continuation of the Wesergebirge, stretches across Minden and Münster. To the south of it, that of the Teutoburgerwald extends in a northwest direction, and near Bielefield attains its loftiest height, not exceeding 1,030 feet. This is succeeded to the south by a low range, the Haarstrang, the highest point of which is scarcely 700 feet. This range, stretching along both banks of the Möhne and Ruhr, presents to both rivers and on both sides, but particularly on the south, a number of bold and romantic precipices. Still farther south the Sauerland Mountains appear. In the northeast these take the name of the Rothlager, and attain their loftiest summit in the Astenberg, 2,625 feet. The last range on the east bank of the Rhine is the Westerwald, nowhere more than 2,000 feet; a part of this range, forming its west termination, stretches along the banks of the Rhine, and presents the remarkable summits known by the name of the Siebengebirge. On the west bank, and in the south part of the Rhine province, the principal mountains are the Eifelgebirge, which, having their greatest breadth between Andernach and Bonn, stretch from the Rhine westward for about 45 miles, and though generally low, attain the height of 1,590 feet; and the Hundsrück, occupying a large space between the Moselle and the Nahe, and attaining, in the loftiest summits of the Iderwald and Hochwald, the respective heights of 2,260 and 1,560 feet.

7. More than four fifths of this portion of Prussia belongs to the basin of the Rhine, which is augmented within it by numerous streams, of which the most important are, on the right, the Lahn, Sieg, Wipper, Ruhr, Emsche, and Lippe, and on the left the Nahe, Moselle, and the Erft. In the northwest a considerable space belonging to the basin of the Rhine, though the water is not received by it within the country, is drained by the Mass and its tributaries, Roer and Niers. The rest of the drainage, forming a minute portion of the north and east, is shared by the Ems and the Weser. There is not a single lake deserving of notice for its magnitude. The most remarkable is Laachersee, about six miles from Andernach, occupying apparently the crater of an extinct volcano, and though of small extent, above 214 feet deep.

8. In the geology of this division, granite, gneiss, and mica are wanting. The prevailing rocks, particularly in the south, are volcanic, and consist principally of basalt, augite, porphyry, and other products of the tertiary period. Graywacke, transition limestone, and clay-slate are also of common occurrence. The secondary formation, especially mountain limestone and the overlying strata of the carboniferous system, are largely developed in the north. The new red sandstone occurs in numerous localities; and lias and oolite are found among the hills between the Weser and the frontier of Hanover. The chalk formation has its largest development in Westphalia.

9. Within the same ranges of latitude, and at nearly equal heights above the sea, the climate of the western is superior to that of the eastern division of the Kingdom. The mean annual temperature is about 1° higher, the winter is milder and the summer cooler. The fall of rain, however, is greater; but this can not be considered a disadvantage, as the quantity is not in excess.

10. The far greater part of the people are Germans; but in several quarters the Lithuanian and Sclavonian stocks preponderate. Thus, in the northeast corner of the monarchy, Lithuanian is spoken, read, written, and taught. The Sclaves occupy the south parts of Gumbinnen, Konigsberg, and Marienwerder, the greater part of Posen, and no inconsiderable part of Silesia. Their number in the aggregate has been estimated at not fewer than between two and three millions. In the western division of the country, and also in the east part of the province of Brandenburg, the French descendants of the Protestants who found an asylum here in the reign of Louis XIV. are numerous, and count about 80,000 souls. The Jews, chiefly resident in the commercial cities, number about 230,000.

11. Prussia has made great and rapid progress in all the great branches of industry, and in many of them excels. Mining, agriculture, and manufactures are alike successfully carried on; and commerce, external and internal, has of late years, and by a wise governmental policy, been largely developed.

12. Mining is a main interest of the country. Iron is very generally diffused; silver is only found in connection with copper, which latter is worked chiefly in Saxony, and more partially in Westphalia and Silesia; lead is found in the same districts; zinc in the same,

except Saxony; cobalt in Westphalia and Saxony, and arsenic in Silesia. Salt is found in all the provinces except Prussia, Posen, Brandenburg, and Silesia. Coal is worked principally in Silesia, Westphalia, and the Rhine provinces. Amber is found in considerable quantities along the shores of the Baltic, and also by digging at some distance inland. Building stones and various ochres, earths, etc., are abundant. The whole value of the products of the mines, which in 1850 was only $28,001,001, had risen in 1855 to $66,092,016. In the latter year, 54,500,000 tons of coal, 2,228,117 of iron ore, and 2,143,646 of zinc ore, were raised from the mines.

13. The whole monarchy is situated in latitudes favorable to the ordinary cereals, and there is nothing, except in a few localities, to unfit it for general cultivation; and in the more southern portions the vine thrives well, yielding some wines of good repute. The proportion of surface absolutely waste does not exceed one fiftieth of the whole; woodlands occupy chiefly the higher parts, and cover about a fourth, arable lands about five twelfths, artificial meadows an eleventh, natural pastures two fifteenths, and gardens and vineyards about a forty-second part of the land. The yearly produce of wheat is estimated at 18,000,000 bushels; of barley, 23,000,000 bushels; of rye, 110,000,000 bushels; and of oats, 120,000 bushels; and potatoes are an exceedingly large crop, averaging 450,000,000 bushels. Hemp and flax are also largely grown, and tobacco to the extent of 20,000,000 pounds annually. The vine is cultivated chiefly in the Rhine provinces, but also on a smaller scale in the eastern governments. The sugar-beet is likewise an object of extensive production. Livestock is abundant; in 1850 the number of each description was as follows—horses, 1,575,387; mules, 329; asses, 7,146; horned cattle—bulls 75,619, oxen 676,395, cows 3,078,126, and heifers 1,541,504; sheep—merinoes 4,452,913, improved 7,942,718, and common 3,901,279; goats, 584,771; and swine, 2,466,316.

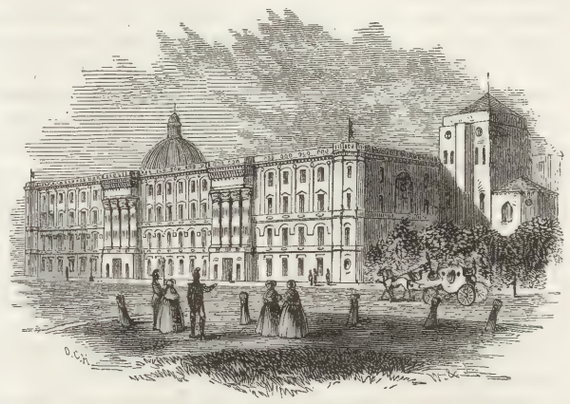
14. Manufactures are not limited to any particular districts, but are generally diffused over all the provinces. The principal articles manufactured are linen and cotton goods, woolen goods, silk and mixed silk tissues, hosiery, and ribbons; and vast quantities of yarn, worsted, and cotton-twist are spun. These manufactures, it is estimated, afford subsistence to 600,000 individuals; but to these a considerable addition should be made for the great number of persons employed in bleach-fields, print-works, and dye-houses. The manufactures of metallic articles and earthenware are next in importance, and employ about 112,000 persons. In iron and steel ware the first place belongs to the Rhine province and the government of Arnsberg. Among particular localities may be specified Solinger, for its fine saws and tools; Aachen, Burtscheid, Altena, and Iserlohn, for needles and pins; Remscheid and Hagen, for locks and various similar articles. In the same localities, also, brassware, including wire and thimbles, are made on an extensive scale. Berlin has long been famed for its fine castings, many of which, whether as articles of ornament or use, are unsurpassed. In this connection may be mentioned type-founding, which, as well as printing, forms an important branch of industry in Berlin. The leather manufacture is very important. Pottery in all its varieties is also extensively manufactured, and Berlin and St. Martin near Treves are celebrated for their porcelain and finer kinds of ware. Stoneware is chiefly made in Saxony and the Rhine provinces, and common pottery, made in all the provinces, has its chief seat in Bunzlau. Glass, not ranking high as a Prussian manufacture, is principally made in the governments of Treves, Minden, and Oppeln. The most important paper-mills are in Silesia, Saxony, and Westphalia. Other manufactures carried on to such an extent as to be of national importance are those of refined sugar, chocolate, chiccory, chemical products, and tobacco. The number of breweries exceeds 8,000, and of distilleries 7,000, producing about 53,000,000 gallons spirits, and 75,000,000 gallons beer annually.

15. The extent of the import and export trade of Prussia is very extensive and valuable. Both from the nature of the country and the number of navigable streams which intersect it, great natural facilities are enjoyed, and these have been very greatly extended by canals, common roads, and railroads. The last mode of communication has already made great progress—the length of 2,384 miles having been completed in 1855; and the length of electric telegraph lines exceeds that of the railroads. The external or seaward outlets are comparatively defective; the Baltic, notwithstanding its long line of coast, being only an inland sea, with a low, shallow shore, and wanting in good harbors.* The mercantile shipping, however, in 1855 reached the number of 1,497 sailing and 30 steam vessels; but of these, 541 sailing and 5 steam vessels were simply coasters. The total tonnage (including 14,936 tons coasting) amounted to 281,432 tons, and the number of seamen employed was 9,407—8,296 in sea-going, and 1,111 in coasting vessels. The shipping in the foreign trade entered at all the ports in the year named amounted to 571,661 tons, and the shipping cleared to 600,254 tons. Among the foreign vessels which trade to Prussian ports, those of Great Britain, Holland, and Denmark are the most numerous. In some of the ports ship-building is carried on with activity—Stettin (Swinemunde) builds about one third of the whole, and also possesses a much larger tonnage than any other port.

16. Considering the large extent of sea-coast, the vast number of lakes, and the number as well as magnitude of the rivers which Prussia possesses, its fisheries can not fail to prove an important source of wealth. The whole value of the product of these fisheries has been estimated at between five and six millions of thalers a year, of which only a little more than a fourth is the value of the products of the sea fisheries.

17. In the east part of the monarchy, and from Berlin as a center, railroads branch off northwest to Hamburg and Denmark; northeast to Stettin, whence a line is continued southeast to Posen; east to Warsaw; southeast to Breslau, and thence to Vienna and Triest; south to Leipzig and Dresden; and west through Magdeburg, Brunswick, and Hanover to Cologne, the last-named place forming a center for the lines of the western part of the monarchy. In this direction, however, the railroad system is less developed, partly because the physical conformation of the country makes it more difficult, and partly because the navigation of the Rhine furnishes a sufficient means of communication. The chief line of railroad here runs west from Cologne, through Aix-la-Chapelle to Brussels, etc. The canals of Prussia have been designed chiefly to connect the river valleys, and in this manner continuous waterways from one to the other are furnished. The great rivers, the Elbe, the Oder, and the Vistula, are thus connected; and many other minor streams and lakes that would otherwise have been comparatively useless are made to subserve the interests of commerce. Few states have better roads of ordinary construction.

18. Prussia is a constitutional monarchy, the crown being hereditary in the male line of the reigning family. The king is advised by a council of state composed of the royal princes, the state ministers, and other officials. Legislative power is vested in the king and two chambers—an upper chamber consisting of the princes of the royal house and 60 hereditary peers, together with 180 members subject to a property qualification, and a lower chamber of 350 deputies, chosen by a suffrage which gives one elector to every 49,000 souls of the population. The executive is exercised through nine ministerial bureaux. The chief civil authority in the provinces is vested in presidents appointed by the king. The two principalities of Hohenzollern, now forming a part of the monarchy, are governed as a single province.



ROYAL PALACE, BERLIN.

19. Justice is administered in most of the provinces according to a general code or landrecht, established in 1794, but in the greater part of the Rhine province according to the French code, subject, however, to certain modifications. For each code a supreme court sits at Berlin—the one called the Geheime Ober Tribunal, which judges in the last resort wherever the landrecht is in force, and the other called the Rheinische Revisions and Kassations Hof, which has similar jurisdiction in all cases decided according to the French code. Over each province a superior court of appeals, called ober-landesgericht, presides, with a power of reviewing all cases decided within it; and in each government is an ober-gericht, possessing a right of reviewing the cases decided within the governments in the courts of primary resort. These last courts consist of a vast number of local jurisdictions, within which justice is said to be for the most part administered cheaply, expeditiously, and purely, by judges chiefly appointed by the sovereign, but partly also by private parties in possession of certain patrimonial rights.

20. The total resources of the treasury, according to the estimates of 1856, amounted to 118,864,071 thalers, more than half of which is derived from taxes direct and indirect; and the estimated expenditures to a like sum, of which 5,538,533 thalers were extraordinary expenditures. The army expenses amounted to 28,700,672 thalers, or nearly one fourth the whole; and the administration of the public debt to 11,944,750 thalers. These figures include the disbursements of Hohenzollern. The aggregate debt amounted to 247,851,509 thalers.

21. The active army on the peace establishment consists of 127,442 men, or with the reserve, of 225,550 men, and 30,545 horses. This army is composed of a corps of guards and eight army corps, each of two divisions. The effective of a corps is 25 battalions of 1,000 men, 32 squadrons of 150 men, and 11 batteries of 8 guns. The fortresses are garrisoned by the army proper and landwehr conjointly. Every citizen after attaining his 20th year is obliged to serve in the regular army for three years, and for two years afterward in the war reserve, during which, in the event of war or other emergencies, he may be again compelled to join the regular army. After the lapse of these five years he enters the landwehr or provincial army, to remain in the first ban until 32, and in the second until 39 years of age, thus making the whole period during which he is liable to be called upon for the defense of the country amount to twenty years. The total force of the landwehr is 349,812 men, of which 174,616 are comprised in the first ban, and 175,196 in the second ban. The landsturm includes all the males in the monarchy from the ages of 17 to 50, not belonging either to the regular army or landwehr. It is called out only in cases of the most urgent necessity, when the national existence may be threatened by invasion.

22. The national navy in 1856 numbered 53 vessels of war, carrying an aggregate of 237 guns. Of these 4 were frigates, 2 sailing (Gefion and Thetes), 86 guns, and 2 steam (Danzig and Barbarossa), 21 guns; 2 corvettes, 1 (Ancona) screw steamer, 28 guns, and 1 (Amazon) sailing, 12 guns; 1 transport vessel (Mercury), 6 guns; 3 schooners (Hela, Frauenlob, and Iltis), 6 guns; 1 steamer (Victoria); 36 gun-boats of 2 guns each, and 6 of a single gun each. The personnel of the navy consisted of 112 officers, 1,089 seamen, a marine corps of 18 officers and 445 men; and this complement in time of war would be augmented to about 3,500 men.

23. No exclusive religious establishment exists in Prussia, and though the reigning family is Protestant, the principles of toleration are generally professed. Persons of all denominations are alike eligible for public employment, and possess the same civil rights. The state, however, distinctly recognizes the two great bodies of Protestants and Roman Catholics, not only protecting them in their respective rights and properties, but directly interfering in their affairs, more especially in regard to the appointment and payment of their ministers, and to their general management. In 1855 the evangelical denominations numbered 10,534,750 souls, and had 8,164 parish churches and 837 extra-parochial congregations; and the Roman Catholics, numbering 6,418,312 souls, had 5,230 churches and 2,008 chapels. Besides these there were 1,380 persons exercising the Greek rite, and having 3 churches; 14,139 Mennonites, having 30 meeting-houses; and 234,241 Israelites, having 901 synagogues. The whole number of places of worship was 17,173. The Protestants are governed by an ober-kirchenrath or general consistory, and eight provincial consistories, under which are 366 superintendencies. The Catholics are governed by the prince-bishop of Breslau, the cardinal-archbishop of Cologne, and the archbishop of Gnesen and Posen, and the five bishops of

* By treaty, July, 1853, with Oldenburg, Prussia obtained a small territory (about five square miles) on the Jahde River, and thus secured to herself a port on the North Sea. The ceded district is to be improved, and will ultimately be connected with Westphalia and the Rhine province by a railroad. An arsenal and naval station will also be established. In 1855 this territory contained 227 inhabitants.

Culm, Ermeland, Munster, Paderborn, and Treves. The Protestants form a large majority in the provinces of Prussia, Brandenburg, Pomerania, and Saxony; and the Catholics in Posen, Westphalia, and the Rhine province. In Silesia the two denominations are about equal in numbers. Of the Jews more than a third of the whole are domiciled in Posen, and the Greek and Mennonite sects are found chiefly in Prussia.

24. The Prussian system of national education is more complete, and has certainly been more successfully carried out than that of any other European state. It places a course of elementary instruction within the reach of the great body of the people, and all children from the age of five years complete (unless receiving a suitable education at home or in a private seminary) must attend the national school until such time as the course of instruction therein provided has been received. This course occupies about eight years, and hence it may be regarded as a general rule that all Prussian children, from the above age to the completion of the thirteenth year, are at school. According to the return of the various grades of schools in 1850, the following is shown:

Grade of Schools.	Number of Schools.	Teachers.	Scholars.
Elementary schools	24,201	30,865	2,453,062
Middle and upper schools	505	2,269	69,302
Upper female schools	385	1,918	53,570
Gymnasia	117	1,664	29,474
	25,208	36,716	2,605,408
Normal schools	46	?	2,411
Universities	7	255	4,306

—the number of children of proper school age was 3,223,362, of whom, as shown in the above exhibit, 2,605,408 were at school, leaving 617,954, or about 20 per cent., to be accounted for as receiving education in other than the national institutions. The universities are those of Berlin, Bonn, Breslau, Greifswald, Halle, Konigsberg, and Munster.

25. For administrative purposes Prussia is divided into ten provinces, and these again into 25 regencies. The extent of the provinces and the population of each in 1854, and also the capitals and chief towns, are given in the subjoined table:

Provinces.	Area, sq. m.	Population.	Capitals of Regencies and other Chief Towns.
East Prussia	15,010	1,538,806	*Königsberg*, 77,748; Tilsit, 14,837; Memel, 9,906; Insterburg, 9,702; Braunsburg, 8,366; *Gumbinnen*, 6,682.
West Prussia	10,023	1,091,390	*Danzig*, 66,875; Elbing, 21,205; Thorn, 12,687; *Marienwerder*, 6,497; Marienburg, 6,057.
Posen (Poland)	11,894	1,403,802	*Posen*, 40,928; Rawitsch, 10,049; Lissa, 8,822; *Bromberg*, 9,686; Gnesen, 7,140.
Pomerania	12,255	1,27-,832	*Stettin*, 50,058; *Stralsund*, 16,682; Stargard, 13,608; Greifswald, 11,426; Kolberg, 7,610; Anklam, 8,410; *Cöslin*, 8,230; Wolgast, 5,627; Swinemunde, 5,002.
Silesia	15,762	3,207,219	*Breslau*, 121,345; Gorlitz, 16,230; Gros Glogau, 16,205; *Liegnitz*, 14,907; Brieg, 13,262; Neisse, 17,164; Grunberg, 11,033; Schwerdnitz, 13,620; Bielau, 9,297; Goldberg, 9,967; Hirschberg, 9,327; Glatz, 8,211; Oppeln, 7,812.
Brandenburg	15,601	2,243,364	BERLIN, 454,918; *Potsdam*, 37,549; *Frankfurt-on-Oder*, 30,988; Brandenburg, 19,205; Prenslau, 13,812; Landsberg, 11,621; Guben, 9,840.
Saxony	9,788	1,862,803	*Magdeburg*, 56,181; Halle, 35,488; *Erfurt*, 24,640; Halberstadt, 20,307; Burg, 16,009; Quedlinburg, 15,677; Naumburg, 13,905; Muhlhausen, 13,723; Nordhausen, 13,177; Aschersleben, 12,910; Zeitz, 12,296; *Merselburg*, 11,220.
Westphalia	7,819	1,523,988	*Munster*, 24,664; Iserlohn, 10,752; *Minden*, 10,122; Soest, 9,207; Paderborn, 8,989; Herford, 7,912; Dortmund, 7,629; Billefeld, 7,188; *Arnsberg*, 4,487.
Rhine	10,352	2,951,849	*Cöln*, 100,470; *Aachen*, 53,496; Barmen, 41,442; Elberfield, 41,080; *Dusseldorf*, 26,577; Crefeld, 45,197; *Coblenz*, 21,506; *Trier*, 17,112; Bonn, 16,726; Wesel, 13,712; Kreuznach, 10,169.
Hohenzollern	443	64,839	*Hechingen*, 3,728; *Sigmaringen*, 2,097.
Total	108,447	17,178,091 (including—11,689—Prussian garrisons beyond the limits of the Kingdom.)	

The progress of the population since 1816, at triennial periods, has been as follows:

1816	10,349,031	1825	12,256,725	1834	13,509,927	1843	15,471,084	1852	16,935,470
1819	10,981,934	1828	12,726,110	1837	14,098,125	1846	16,112,933	1854	17,178,091
1822	11,664,133	1831	13,038,960	1840	14,928,501	1849	16,331,187	1855	17,202,013

Of the whole population about one third is urban and two thirds rural.

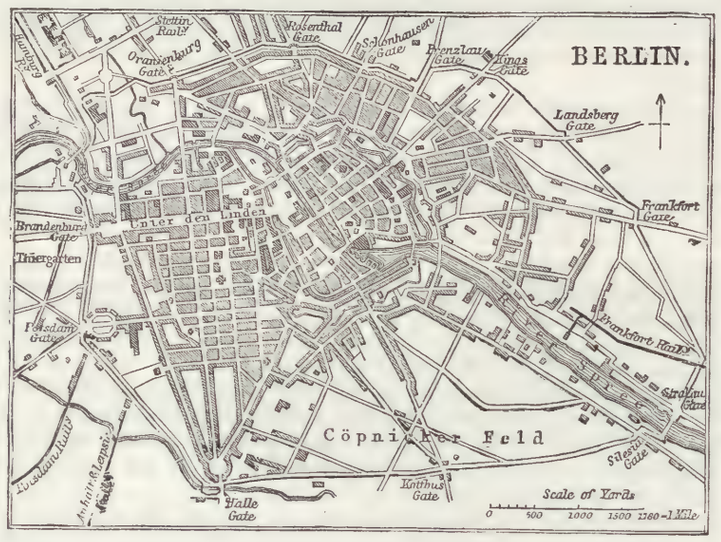
26. Prussia contains 980 cities and towns, 347 municipal boroughs, 31,795 villages and hamlets, etc., as follows:

Provinces.	Cities and Towns.	Municipal Boroughs.	Villages and Hamlets.	Provinces.	Cities and Towns.	Municipal Boroughs.	Villages and Hamlets.
Prussia	121	39	7,962	Silesia	142	54	5,511
Posen	145	2	3,380	Saxony	140	85	3,057
Brandenburg	138	27	3,073	Westphalia	98	64	1,862
Pomerania	72	7	2,676	Rhine	124	118	4,274

27. Berlin, the capital of the Kingdom, is situate on the Spree, about 156 miles from Hamburg, in latitude 52° 30′ 16″ north, and longitude 13° 23′ 58″ east. It is built on a sandy plain, 115 feet above the sea, is about 10 miles in circuit, occupies an area of 6,800 acres, and is one of the finest and most handsomely constructed cities of Europe. The chief divisions of the city are: Berlin proper; Cologne (Alt and New Köln), on the Spree; Louisienstadt, in the south; Friedrichstadt, in the southwest; Friedrichswerden, between Alt and New Köln and Friedrichstadt; Neustadt or Dorotheenstadt, between Friedrichstadt and the Spree; Friedrich-Wilhelmstadt, built 1828, and the suburbs of Stralhan, Spandau, and Konigstadt, Oranienburg, and Potsdam. The city is surrounded by a wall 16 feet high, and is entered by 16 gates. Of the 40 bridges which cross the Spree and its branches, the principal are the Long Bridge, the Palace Bridge, and Friedrich Bridge.

28. The city generally is regularly built, but the houses are of little elevation. The finest streets are in Friedrichstadt and Dorotheenstadt; the most celebrated is that called "Unter der Linden," a broad and imposing street, planted with four rows of lime-trees, terminated by the Brandenburg gate at the one end and the royal palace at the other. Other streets most worthy of notice are—Friedrich Street, Wilhelm Street, Paris Square, Wilhelms Place, Belle Alliance Place, and the Gensd'armes Market. Around the principal squares and streets are grouped numerous public buildings, among which are the royal castle and palace, the Arsenal, the University, museums, the Exchange, Opera House, theaters, and the palaces of the princes. Of the churches the Cathedral in the Lustgarten is the finest, but none of them are remarkable for their architecture. The suburbs have many attractions, among which are the Thiergarten, a large open park outside the Brandenburg gate, and the Kreutzberg, a sandhill south of the Halle gate, whence the only good view of the city is obtained.

29. Berlin is the great center of education and intellectual development in northern Germany; and its literary and scientific establishments are numerous and celebrated. The University, founded in 1809, comprises schools of jurisprudence, medicine, and philosophy. Besides this there are six gymnasia, two Protestant theological seminaries, a military school, schools of artillery, military engineering, architecture, sculpture, painting, and music, and many elementary and high schools. It has extensive public libraries, among which the royal library, founded in 1650, has 600,000 printed volumes and many manuscripts. Among its valuable collections are museums of painting, sculpture, antiquities, coins, etc., a museum of natural history, an astronomical and magnetic observatory, and a botanic garden, one of the richest and most complete in Europe. Its justly celebrated academic institutions comprise the academies of sciences, the academy of the fine arts, the academy for the encouragement of industry, and the academy of music; a geographical society and a society of natural history. Since the times of Frederick the Great, indeed, it has been the policy of the Prussian monarchs to attract to their capital either through professorships in the University or otherwise, learned men in every department of knowledge. Consequently, though ranking as yet among modern built cities, the number of eminent men who have labored or who still labor within the walls of Berlin is very great. Among the charitable institutions of Berlin the most important are the Hotel des Invalids and an orphan hospital.



30. As a manufacturing city, and in the importance and varieties of its products, Berlin is the first town of Germany. Its principal industrial products are cloths, linens, carpets, silks, ribbons, and printed cottons; ironwares, especially the beautiful cast-iron articles called Berlin jewelry, paper, porcelain, mathematical and optical and musical instruments, chemical and dye stuffs, etc. Among its great establishments are the royal iron foundery and royal porcelain manufactory. The productions of the press in typography, chartography, and lithography are numerous and excellent, and the city is a principal center of the German book trade. Its trade and commerce are both extensive and ramified. All the great roads of the Kingdom meet in Berlin; its position on a navigable river, communicating by canals with the Elbe, Oder, and Vistula, renders its navigation of considerable importance, and it is now the center of a system of railroads which connects it with the Baltic by Hamburg and Kiel on the northwest, and by Stettin on the northeast. On the southeast a line extends by Breslau to Vienna, on the south to Leipzig and Dresden, etc., and on the west by Magdeburg and Hanover to the Rhine province and Belgium. Railroad communication, indeed, is now made to all parts of Europe and to nearly every principal town.

31. Potsdam, on the Havel, at the confluence of the Ruthe, 17 miles from Berlin, is one of the finest and most regularly built cities of Germany. It consists of an old and a new town (separated by the Havel Canal) and several suburbs, and is partly walled and entered by five land gates and four water gates. The chief buildings are the royal castle and council-house, the garrison church, and the theater. Its manufactures are fire-arms, cotton and silk goods, etc. Potsdam, however, is chiefly noted as a royal residence and military depôt. It has a school of cadets, a geographical school, and an institution for the education of orphans of the military. Alexander Von Humboldt was born here. In the vicinity is the palace of Sans Souci, the favorite residence of Frederick the Great; the new palace, a splendid edifice in a fine park, and the Pfaueninnel, an island in the Havel, with a summer-house, a menagerie, gardens, etc.

32. Brandenburg, also on the Havel, and on the Berlin and Magdeburg Railroad, 37 miles from Berlin, is encircled by walls, and divided by the river into the old and new town, between which, on an island, is the quarter called Venice, having a cathedral of the fourteenth century, a castle and council-house, which are noticeable on account of their antiquity and works of art. Brandenburg has a school for the noblesse of the Mark of Brandenburg, a college, and a public library, and many charitable foundations. Its manufactures are considerable, and an active commerce is carried on both by land and water.

33. Frankfurt-on-the-Oder, situate 56 miles east from Berlin, with which it communicates by railroad, is a fine city, with an industrious and commercial population, whose traffic is greatly promoted by the canals which connect the Oder with the Vistula and the Elbe. It is inclosed by walls and moats. Large fairs are held three times a year, and attended by merchants from distant parts of Europe. Near the city is Kunnersdorf, the scene of the defeat of Frederick the Great by the Austrians and Russians, 12th August, 1759. Kustrin is an important fortress 18 miles below Frankfurt, at the confluence of the Oder and Wartha.

34. Stettin is a strongly fortified town on the left bank of the Oder, at its mouth in the Stettiner-Haff, and, next to Danzig, is the chief port of the Prussian monarchy. It is connected with Berlin by railroad. The royal castle and landschafthaus (hall of the states) are its principal public buildings. Dam, on the east bank of the river, is also strongly fortified in connection with Stettin. Swinemunde, on the island of Usedom, at the mouth of the Swine, one of the outlets of the Stettiner-Haff, has a tolerable harbor, and is regarded as the port of Stettin. Stralsund, on the west side of the Strait of Gellen, which separates it from the island of Rügen, is a strong, busy, and commercial town. It has a fine arsenal and various other public buildings. Its harbor is safe for vessels drawing 15 feet water, but is difficult of access. Corn, beer, timber, linens, etc., are the principal exports. It was formerly one of the Hanse towns.

35. Konigsberg, capital of Prussia proper, is situate on the Pregel, 5 miles from its mouth in the Frische-Haff. Latitude 54° 42′ 8″ north, and longitude 20° 30′ 2″ east. The town is large and regularly built, but old-fashioned, and is the seat of a university, with a celebrated observatory. It carries on a considerable trade through Pillau, which may be considered its port, and which is strongly fortified. Memel is a flourishing sea-port town at the entrance of the Curische-Haff, the principal trade of which is in timber and grain. It is the most northern town of the Kingdom. Tilsit, at the confluence of the Tilse with the Memel, is also a busy commercial town, and is noted for the peace concluded here in 1807 between France and Russia. Gumbinnen, on the Pissa, is a small interior town.

36. Danzig stands on the left bank of the most westerly branch of the Vistula, near the gulf so called. It is an ancient city, and until 1795 was a free town under the protection of Poland. The place is ill-built, but from its fine situation it enjoys a considerable trade. It is surrounded by strong fortifications, and has endured several memorable sieges. Neufahrwasser, a small town of 2,000 inhabitants, is the port of Danzig. Elbing, 40 miles east-by-south, is a large commercial town, connected by canals with the Frische-Haff and the Nogat. Marienwerder, on the Little Nogat, 45 miles south of Danzig, has considerable manufactures. Thorn, a very strong town on the Vistula, is celebrated for its industry and commerce, and noted as the birthplace of Copernicus.

37. Posen, on the Wartha and Lowna, and the terminus of the railroad from Stettin, is a walled and strongly fortified town. It was the capital of ancient Poland, and is still a large and flourishing city. Bromberg, on the Brahe, has a considerable transit trade, and its chief manufactures are linen and woolen fabrics. The Bromberg Canal connects the Vistula with the Oder, by uniting the rivers Netz and Brahe. Gnesen is considered the oldest town in Prussian Poland.

38. Breslau, on the Oder, at the influx of the Ohlan, communicates with Berlin, Cracow, Pesth, and Vienna by railroad. It is a large, old-fashioned town, with narrow streets and high houses, surmounted with curious turrets, and is strongly fortified and garrisoned. It consists of an old and new town and five suburbs, the whole united by bridges, and possesses a large number of fine public buildings, among which is the palace of the prince-bishop, the Cathedral, and University, the latter of which has a fine library. Breslau is the great emporium for the linens of Silesia, and the greatest mart for wool in Germany; and besides having extensive and varied manufactures, it enjoys a very large and valuable trade with Hungary and southern Russia. Bielau, 30 miles south-southwest, is the largest village of the Kingdom. Oppeln, on the Oder, 51 miles southeast of Breslau, is a small manufacturing town, and is fortified. Neisse, at the confluence of the Biela and Niesse, is also a fortified town. Liegnitz is a large commercial town near the confluence of the Schwarzwald and the Katzbach. Gorlitz, which is connected with Dresden by railroad, is the seat of the Scientific Society of Upper Lusatia, and has also considerable manufactures and an active trade. Gross-Glogau is also a considerable town, with strong fortifications and some commerce. It is connected with Berlin by railroad.

39. Magdeburg, on the left bank of the Elbe, 76 miles from Berlin, with which it is connected by railroad, is the citadel of Prussia, and one of the strongest fortresses of Europe. It is an industrious and commercial town, and has several scientific and literary establishments. It has two suburbs—Neustadt on the north, and Sudenburg on the south. Merseburg is a small town 9 miles south of Halle; the latter a busy commercial place, and the seat of a celebrated university. It is particularly noted for the activity of its printing presses. Erfurt, on the Gera, is a fortified city with a strong garrison, 15 miles west of Weimar. It is a busy commercial place, and has extensive manufactures.

40. Munster, on the Aa, not far from the Ems, is the capital of Westphalia. It is a well-built, busy, and commercial town, and the seat of a university and several scientific and literary institutions. It was here that the peace of Westphalia was signed in 1648. Minden, on the Weser, is a fortified town, and has an active commerce. Iserlohn is noted for the immense quantities of articles of copper, brass, and iron made in its neighborhood, and for rich calamine mines at distance of two miles. Arnsberg is a small town with linen and woolen manufactures.

41. Köln or Cologne is a large and very ancient city on the left bank of the Rhine. It is about seven miles in circuit, surrounded by strong ramparts and towers, and is connected



COLOGNE, FROM THE NORTH.

by a bridge with Dentz, a small town on the right bank of the river, which is also strongly fortified, and forms a part of the system of fortifications of the city. The streets are narrow and crooked, and, as a whole, Cologne is "a collection of dirty streets, lanes, and ill-arranged places, jumbled together in a confused mass." It has, however, some noble edifices, including its vast cathedral, begun in 1248 and still unfinished, numerous other ecclesiastical edifices, and many institutions of learning. Its manufactures consist chiefly of cotton yarns and stuffs, silk fabrics, velvets, woolen cloths, hosiery, lace, cordage, earthen and lacquered ware, etc., and eau de Cologne. Its position gives it an extensive and increasing trade between Germany and the Netherlands. It communicates by railroad with Hanover and Berlin on the east, and Aix-la-Chapelle and Belgium on the west; and has an extensive steamboat traffic on the Rhine. Bonn, also on the Rhine, and connected with Cologne by railroad, is a fine, cleanly, and compact town. It is a very old town, and has a venerable cathedral and town-house. The University, founded in 1818, has a rich library of 100,000 volumes, a museum of antiquities, an observatory, botanic garden, museum of natural history, with an extensive collection of minerals, etc. Its environs are very beautiful.

42. Dusseldorf, on the right bank of the Rhine, at the influx of the Dussel, is a fine old town, and generally well built, with numerous ancient and celebrated edifices. Near the river and quays the streets are full of factories and warehouses, but beyond these are many handsome streets and planted squares. Its fortifications were destroyed by the French, and their place is now occupied by public walks. It has a considerable commerce both by river and railroad. Dusseldorf is noted for its famous school of painting, and has also numerous learned and scientific institutions. Within the circuit of a few miles are the flourishing manufacturing and commercial towns of Elberfield, Barmen, Remscheid, Krefeld, Solinger, etc., of which Dusseldorf forms the depôt and shipping port. Coblenz, at the union of the Moselle with the Rhine, is surrounded by very strong fortifications, which form an entrenched camp capable of containing 100,000 men. Otherwise it is a very pleasant town, with spacious streets and places and adorned with handsome buildings. It has a respectable amount of manufactures and considerable trade. Treves or Trier is a small city on the Moselle, and is believed to be the oldest city of Germany. Many of its buildings date from the Roman occupation. It has manufactures of linen, cotton, and woolen fabrics, and a brisk trade in Moselle wines, corn, and timber.

43. Aix-la-Chapelle (Aachen), on the Rhenish frontier, and 40 miles west of Cologne, with which it is connected by railroad, is a well-built and handsome city, and a strongly fortified place. It has many fine edifices, among which are conspicuous its ancient cathedral, founded 796, a large town-hall, several fine churches and hospitals, a public library, etc. The cathedral contains the tomb of Charlemagne. The city is situate in a valley nearly surrounded by hills, and has long been noted and resorted to for its warm and sulphur waters. It is the seat of various and important manufactures, and its trade is very considerable. Aix was formerly an imperial city, and from the time of Louis I. to the year 1558, 36 emperors and 10 empresses were here crowned; and 17 diets and 10 synods have been held in the city. It is here that the Belgian railroads form a junction with those of Prussia.

44. Toward the end of the tenth century the shores of the Baltic were inhabited by tribes chiefly of Alan extraction, and from one of these, called Borussi, which occupied the more eastern parts, the name of Prussia is supposed to be derived. These tribes were soon after converted, and by the middle of the twelfth century Christianity was professed by the great body of the people. This ascendancy was again lost, and the original pagan possessors were proceeding to make themselves masters of the country, when Christian and Conrad of Musovia, who had previously held it in subjection, called in the aid of the Teutonic knights, tempting them with the offer of all the lands they might conquer. The grand-master of the order consequently, in 1237, sent a force against the country, and the work of conquest began. Quarrels, however, soon arose between the knights and the Poles, and in the wars that ensued the latter had so much the advantage, that at the peace of Thorn, in 1466, they obtained a cession of the west half of the territory, and became liege lords of the remainder.

45. With the view of recovering part of what they had lost, the knights in 1511 made choice of Albrecht, margrave of Brandenburg, for their grand-master, who, after various unsuccessful negotiations, declared war against the Poles. Neither side having gained advantage, a truce was agreed upon in 1521, and the grand-master having made a journey into Germany, became acquainted with Luther, who urged him to lay aside the dress of his order and make himself temporal prince of Prussia, and hold it under Poland as his liege lord. This advice was followed, and Albrecht entered peacefully, and with the concurrence of the Polish king, into temporal possession. He afterward married Anna Dorothea of Denmark, gave powerful support to the Reformation, caused the Bible to be translated into Polish and Lithuanian, and founded the university of Konigsberg. He died in 1568, and was succeeded by his son, on whose death, in 1618, the succession opened to George William, elector of Brandenburg, with which electorate Prussia has ever since been united.

46. This sovereign was succeeded in 1640 by Frederick William, usually surnamed the Great Elector. During a long and successful reign of 48 years he obtained a recognition of his sovereignty over Prussia, and increased his possessions by the addition of the greater part of Hinter Pomerania, the bishopries of Halberstadt, Minden, and Cammin, the archbishopric of Magdeburg, and the territories of Cleves, Mark, and Ravensburg. Frederick III. became elector on the death of his father, in 1688, and afterward became the first king of Prussia, by his coronation at Konigsberg, in 1701. This monarch was succeeded in 1713 by his son, Frederick William I., who proved a patron of science and art, and a benefactor to his country.

47. Frederick the Great came to the throne in 1740, and under him Prussia became one of the leading powers of Europe. He added greatly to its extent by the conquest of Silesia and the partition of Poland; so that during his reign the area of the monarchy was nearly doubled, and the population, which on his accession did not exceed 2,500,000, rose to more than 6,000,000. He died in 1786, and was succeeded by Frederick William II. The reign of this sovereign is signalized by the final dismemberment of Poland, and a great accession of territory to the Kingdom. But while thus a party to the dismembering of an independent kingdom, his own territories became suddenly exposed to a similar fate, by the breaking out of the French Revolution and its subsequent progress. In the midst of preparations for opposing it he died, in 1797, and was succeeded by Frederick William III., whose reign, which at one time threatened to be the most disastrous which Prussia had witnessed since she became a Kingdom, was ultimately prosperous and glorious. Not only was the independence of the Kingdom secured by the overthrow of Napoleon, but its limits were greatly extended, and a series of measures introduced which have contributed in a remarkable degree

to the development of its resources, wealth, and power. Under the reigning monarch, Frederick William IV., who succeeded his father in 1840, Prussia received a constitutional government, and is now one of the most enlightened and prosperous states of Europe.

[*Weights, Measures, and Moneys.*—The system of Prussia has been generally adopted by the smaller states of northern Germany.

Weights.—The "pfund" or lb. of 2 marks, 16 unzen, or 32 loths (= 467.71 grammes) = 1.03123 lb. avoirdupois; 110 pfund = 5 stein = 1 centner, and 280 pfund = 20 lispfunds = 1 shippfund.

Measures.—The fuss or foot (lineal) of 12 zollen (= 313.84 millimetres) = 12.3561 inches, and the "elle" of 25⅛ zollen = 26.2575 inches; 12 fuss = 2 fathoms = 1 ruthe, and 2,000 ruthen = 1 meile; the "morgen" (surface) = 18 square ruthen, and 30 morgen = 1 hufe; the "maas" of 2 oessel (liquid) = 1.1451 litres or 0.3025 gallon; 120 maas = 4 anker = 2 eimer = 1 ohm, and 6 ohm = 4 oxhoft = 1 fuder; the "scheffel" (dry) of 4 viertel, 16 metzen, or 64 massel (= 54.9615 litres) = 1.5597 bushel; 24 scheffel = 1 wispel, and 60 scheffel = 1 last.

Moneys.—Money is counted in thalers of 30 silver groschen, each of 12 pfennings. The coinage consists of pieces nominally of 10, 5, and 2½ thalers in gold, and the thaler and its multiples and subdivisions in silver. Gold is minted at the rate of 35 five-dollar pieces to the mark weight of metal 906 fine, and hence = $4.02465; and silver is minted at the rate of 14 thalers to the mark weight of fine metal, and hence = $0.69443. Silver is the only standard of value.]

GERMAN CONFEDERATION.

1. Germany or the German Confederation is a brotherhood of numerous states in Middle Europe, bound together by a common origin and language, by mutual interests and for the general purposes of national government; each state, however, retaining the management of its own internal affairs and organization in a separate capacity. Individually, these states, with two or three exceptions, are weak and insignificant communities, incapable of self-preservation, and liable to overthrow from internal or external disturbances; but confederated, they exercise a powerful and respectable influence throughout Europe. United Germany, indeed, is a first-rate power in the world, and in few other instances is the value of combination so significantly illustrated.

2. This great country is situated between latitudes 44° 48′ and 54° 50′ north, and longitudes 5° 45′ and 19° 42′ east; and is bounded on the north by the German Ocean, Denmark proper, and the Baltic Sea; on the east by Prussian Posen, Poland, Galicia, Hungary, and Croatia; on the south by Istria, the Adriatic, Austrian Italy, and Switzerland; and on the west by France, Belgium, and the Netherlands. Its greatest extent north and south is nearly 700 miles, and east and west, nearly 640 miles, and includes an area of 244,000 square miles.

3. The following table presents a list of the states of the confederation, ranged in accordance with their rank, and also a general view of their present (1855–6) condition, so far as statistics are applicable to numerical illustration.

Rank.	States of the Confederation.	Area, sq. miles. Absolute.	Relative.	Population. Absolute.	Relative.	Popula. to sq. mile	Army.	Navy. Vess.	Guns.	Revenue. Resources.	Expenses.	Public Debt.	Foreign Commerce by Sea. Shipping. Entered.	Cleared.	Value of Freights. Imported.	Exported.	Mercantile Shipping.	Capital Cities and their Population.	
										$	$	$	Tons.	Tons.	$	$	Tons.		
1	Austria ..... *Empire*	76,079	.31326	13,382,189	.30376	178.6	707,711	108	858	131,393,442	201,343,091	1,392,611,418	753,865	735,332	28,971,586	15,239,227	316,286	Vienna	431,889
2	Prussia ..... *Kingdom*	71,577	.29346	13,068,055	.29708	182.5	547,888	53	237	83,060,449	83,223,525	173,496,056	571,661	600,254	? —	? —	281,432	Berlin	487,001
3	Bavaria ..... "	29,484	.12088	4,541,556	.10324	154.0	245,414	—	—	15,837,966	16,558,744	80,256,726	—	—	—	—	—	Munich	182,112
4	Saxony ..... "	5,766	.02369	2,039,075	.04635	353.6	25,396	—	—	6,328,630	6,278,119	43,278,186	—	—	—	—	100,413	Dresden	108,732
5	Hanover ..... "	14,846	.06088	1,819,253	.04136	122.6	24,107	—	—	6,717,934	6,873,730	30,478,644	? —	? —	1,374,440		—	Hanover	42,484
6	Wurtemburg ..... "	7,517	.03082	1,733,263	.03940	230.6	22,016	—	—	5 087,346	5,152,369	21,950,989	—	—	—	—	—	Stuttgart	46,507
7	Baden ..... *Grand Duchy*	5,916	.02425	1,356,943	.03085	229.3	15,000	—	—	4,129,341	4,087,137	30,139,276	—	—	—	—	—	Carlsruhe	25,160
8	Hesse-Cassel ..... *Electorate*	3,740	.01533	755,350	.01717	201.9	8,519	—	—	3,321,598	3,603,481	9,385,127	—	—	—	—	—	Cassel	32,516
9	Hesse-Darmstadt ..... *Grand Duchy*	3,245	.01330	854,314	.01942	263 3	10,621	—	—	3,060,036	3,112,984	6,699,756	—	—	—	—	—	Darmstadt	29,716
10	Holstein and Lauenburg ..... *Duchies*	3,698	.01516	573,003	.01303	154.9	5,610	—	—	764 820	872,923	—	? —	? —	? —	? —	20,498	Glückstadt	6,219
11	Luxemburg and Limburg ..... "	1,842	.00755	401,600	.00913	218.0	3,804	—	—	with	Kingdom of	Holland.	—	—	—	—	—	Luxemburg	11,143
12	Brunswick ..... *Duchy*	1,427	.00585	271,208	.00616	190.0	4,857	—	—	984,200	984,200	5,014,466	—	—	—	—	—	Brunswick	43,291
13	Mecklenburg-Schwerin ..... *Grand Duch*	5,187	.02127	541,091	.01230	104.3	5,370	—	—	2,304,623	2,401,019	—	99,000	87,000	934,500	3,056,200	117,517	Schwerin	17,336
14	Nassau ..... *Duchy*	1,388	.00754	431,549	.00981	234.6	5,498	—	—	1,678,167	1,819,754	3,280,000	—	—	—	—	—	Wiesbaden	12,269
15	Saxe-Weimar-Eisenach ..... "	1,402	.00574	263,755	.00599	188.1	3,115	—	—	1,085,579	1,080,967	3,942,526	—	—	—	—	—	Weimar	12,271
16	Saxe-Coburg-Gotha ..... "	772	.00316	150,878	.00343	195.4	1,860	—	—	377,977	377,977	1,141,269	—	—	—	—	—	Coburg	12,122
17	Saxe-Meiningen-Hildburghausen .. "	972	.00398	165,580	.00376	170 3	1,342	—	—	652,821	652,821	1,446,717	—	—	—	—	—	Meiningen	6,497
18	Saxe-Altenburg ..... "	510	.00209	132,990	.00302	260.7	1,473	—	—	518,918	517,862	1,463,939	—	—	—	—	—	Altenburg	16,232
19	Mecklenburg-Strelitz ..... *Grand Duchy*	1,051	.00431	99,628	.00226	94.9	1,077	—	—	with M	ecklenburg-	Schwerin.	—	—	—	—	—	Neu-Strelitz	6,484
20	Oldenburg and Kniphausen. "	2,441	00101	285,149	.00648	116.8	3,738	—	—	1,848,350	1,867,110	2,485,000	65,511	68,075	? —	? —	73,548	Oldenburg	7,829
21	Anhalt-Dessau ..... *Duchy*	321	.00132	70,128	.00159	218.4	726	—	—	912,450	881,650	1,519,000	—	—	—	—	—	Dessau	11,981
22	Anhalt-Bernburg ..... "	319	.00130	53,475	.00122	167.6	555	—	—	685,351	688,604	1,652,000	—	—	—	—	—	Bernburg	6,772
23	Anhalt-Kothen ..... "	278	.00114	44,722	.00102	160.8	454	—	—	with	Dessau.	1,925,000	—	—	—	—	—	Köthen	
24	Schwartzburg-Sondershausen *Principality*	328	.00134	61,452	.00139	187.3	676	—	—	374,113	369,261	1,085,013	—	—	—	—	—	Sondershausen	3,612
25	Schwartzburg-Rudolstadt .... "	371	.00114	68,974	.00155	185.8	899	—	—	294,008	297,384	—	—	—	—	—	—	Rudolstadt	5,912
26	Hohenzollern-Hechingen .... "	107	.00044	21,822	.00049	204.0	—	—	—	144,396	132,272	with Prussia.	—	—	—	—	—	Hechingen	3,728
27	Lichtenstein ..... "	61	.00025	7,150	00016	117.2	70	—	—	26,827	26,827	—	—	—	—	—	—	Lichtenstein	1,800
28	Hohenzollern-Sigmaringen .. "	336	.00137	43,017	.00098	128.0	—	—	—	with	Hechingen.	with Prussia.	—	—	—	—	—	Sigmaringen	2,097
29	Waldeck ..... "	460	.00188	58,132	.00132	126.3	779	—	—	254,658	261,559	—	—	—	—	—	—	Arolsen	2,000
30	Reuss-Greitz ..... "	144	.00059	35,152	.00079	244.1	879	—	—	40,600	40,600	—	—	—	—	—	—	Greitz	6,215
31	Reuss-Schleitz ..... "	448	.00184	80,203	.00182	170.9		—	—	174,845	173,495	—	—	—	—	—	—	Schleitz	4,912
32	Schaumburg-Lippe ..... "	171	.00070	29,848	00067	174.5	350	—	—	159,600	159,600	—	—	—	—	—	—	Bückeburg	3,250
33	Lippe-Detmold ..... "	437	.00179	105,490	.00239	246.4	1,080	—	—	286,800	296,800	224,000	—	—	—	—	—	Detmold	4,716
34	Hesse-Homburg ..... *Landgravate*	106	.00044	24,937	.00055	235.2	300	—	—	139,800	137,287	430,764	—	—	—	—	—	Homburg	4,600
35	Lübeck ..... *Free City*	126	.00052	54,166	.00123	429.9	611	—	—	327,300	327,300	3,705,000	165,798	162,738	57,830,940	? —	18,453	Lubeck	26,098
36	Frankfurt ..... "	39	.00016	74,784	.00170	1917.5	719	—	—	754,520	752,699	4,971,400	—	—	—	—	—	Frankfurt	64,257
37	Bremen ..... "	74	.00030	88,856	.00202	1200.6	722	—	—	1,177,374	1,026,639	8,507,340	199,223	215,213	88,876,134	35,514,753	140,418	Bremen	60,087
38	Hamburg ..... "	136	.00056	219,606	.00499	1614.9	1,947	—	—	2,021,544	2,019,799	18,280,206	927,006	929,952	184,821,597	177,459,982	159,663	Hamburg	164,145
	Total	243,572	1——	44,008,293	1——	180.3	1,655,183	161	1,095	276,926,383	358,399,589	1,844,371,318					1,228,228		

4. Germany, taken as a whole, admits of being divided into four distinct natural regions: a southern mountain region, a central plateau, a central mountain region, and a northern plain.

5. The south mountain region is covered by the Alps, which, entering Germany from the southeast of Switzerland, proceed east through the Tyrol, and throw off one large branch which descends south through Illyria to the Adriatic and continues east with the other main branch till it becomes linked with the great chain of the western Carpathians.

6. The central mountain region of much less elevation than the former, since it nowhere attains the limit of perpetual snow, and does not in the average height exceed 5,000 feet, is much more complicated, consisting of a great number of separate ranges which ramify in all directions, and become so interlaced with each other that the limits assigned to them are in many instances arbitrary. The only range which has any title to be considered as a common center is the Fichtelgebirge, which is continued east by the Erzgebirge and Riesengebirge, southeast by the Böhmerwald, west by the Thüringerwald, Rhongebirge, and Spessart, and carried to its north limit in the Harz. The west boundary of the central mountain region is formed chiefly by the Schwarzwald and Odenwald.

7. Between, or rather inclosed by ranges of the two great mountain regions now referred to, lies the central plateau of Germany, covering a space of about 80,000 square miles. Neither in extent nor in elevation can it be compared to the great plateaux of the African or Asiatic continents, though in miniature it bears a considerable resemblance to both. Its average height above the sea-level is from 1,400 to 1,500 feet; and its surface, by no means uniform, is both broken by hills and intersected by valleys, within which important rivers pursue their courses.

8. To the north of the central mountain region is the great plain, which extends without interruption to the German Ocean and the Baltic, and flattens down so much when it approaches them as in many places to require artificial protection from their encroachments. Its length, east and west, may be about 550 miles, and its average breadth 200 miles. To all appearance it has once been covered by the sea, alluvial deposits of great depth being spread over almost every part of its surface, and generally with so large a proportion of sand as to make it for the most part naturally unfertile.

9. The central mountain region and plateau of Germany forms part of the great watershed of Europe, and either gives rise to more than one of its most important rivers or sends them their principal affluents. Thus the Danube, rising near its west extremity, proceeds across it in an easterly direction, and does not quit it till it reaches the confines of Hungary, and has itself not only become a large navigable river, but been augmented by important navigable tributaries. The Rhine, in like manner, though it neither rises nor terminates within Germany, flows within it through more than half its course, and forms its boundary for more than half of the remainder. After these come the Elbe, strictly speaking the greatest river of Germany, inasmuch as its whole basin lies within it, and then in relation to their volume and importance, the Oder, Weser, Main, Neckar, Moselle, Ems, and Eider, all of which are large and navigable rivers.

10. The geological formation of the country of course varies in its several parts. South of the Alps the rocks are chiefly primary, and form rugged and fantastic masses, which at a distance have the appearance of castles in ruins. This formation overlies porphyry. The Alps of Salzburg, which extend to the Danube, are composed of granite and primitive rocks. Upon the right bank of the Danube the low plains are covered with alluvium and detrital matter; and upon the adjoining slopes of the Carpathian and Sudetic mountains there are isolated basins of coal formation. In Silesia the alluvial plains abound in a black clay.

11. The constitution of the Bohemian mountains differs essentially from that of the Alpine ranges, and small-grained granite, micaceous rocks, slate, schist, and sienite form the Böhmerwald. Some of the mountains are of volcanic origin, and contain freestone and basalt, surrounded with limestone full of fossil shells. The porphyries of the Erzgebirge have undergone some violent upheaval, and many mineral springs issue from these hills, all from their character indicating igneous action. Near Eger is the Kammerberg, a conical mountain covered with lava and scoria. The substructure of the Erzgebirge, however, is granite, and its mineral wealth, particularly on the Saxon side, is of such importance as to have given the mountain the name it bears, which means "metalliferous mountain." In the valley of the Danube are extensive tracts of the epoch of the Paris basin, and large deposits of extinct animals are found in the alluvial soils.

12. The granitic rocks of the Schwarzwald support in some places limestone of the secondary period; the spurs, which extend to the north, are composed of old sandstone, the



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slopes that overlook the Rhine of soil posterior to the chalk, and the flanks of the whole chain are covered with thick forests. To the north of the Main the hills are composed of primitive limestone, to the east and west of volcanic deposits, which form on the one side the chain of the Vogelberg and Westerwald, and on the other the basaltic group of Eifel.

13. The constitution of the formations now entirely changes, and to the north and west all the plains which descend to the North Sea are covered with immense beds of sedimentary deposits, or with beds of sand overlying chalk, limestone, gypsum, etc., which mix at last along the shores of the Baltic with the sandy and marshy soils of Pomerania.



FALLS OF THE RHINE.

14. Among the mineral products of Germany may be mentioned the gold of Austria and Baden; the silver of Saxony and Hanover; copper, iron, tin, rock-salt, and alum in Prussia and Austria; lead and litharge in Hanover and Austria; manganese and cobalt in Saxony; antimony and bismuth in Austria; mercury in Austria and Bavaria; and sulphur in Saxony and Austria. Coal, lignite, alabaster, kaölin, calamine, etc., also marbles and various building stones, with sundry precious stones—as amethysts, garnets, etc.—are found in various localities. Germany is likewise extremely rich in mineral waters, including chalybeate, sulphurous, alkaline, saline, and warm of all kinds; but these occur chiefly in the south country.

15. Though Germany extends over 10° of latitude, its mean annual temperature is remarkably uniform. Excepting the limited district south of the Alps, the mean at Triest being 58° Fahr., the mean annual difference does not exceed 5°—between 45° and 50°. This uniformity is evidently owing mainly to the different elevations of the surface—the low plains in the north having a higher, while the hills and plateaux of the south have a lower temperature than their latitudes would indicate. The climate, however, is more continental than insular, and hence the seasonable range of the thermometer is very considerable; and delicate plants that grow vigorously in summer often perish in the keen frosts of winter. Both the Rhine at Mannheim and the Danube at Vienna usually receive a coating of ice. The mildest climate is enjoyed by the valleys of the Rhine and the Main, where both the almond and chestnut are matured. The cultivation of the vine is general south of 51°, but north of that latitude it ceases to be profitable.

16. With the exception of the loftier mountain districts, where the surface is fit only for pasture (and often where even that fails richer treasures are found beneath it), the growth of all the ordinary cereals is universal. Potatoes, hemp, and flax also form most important crops, and in many places tobacco and hops are cultivated on an extensive scale. The forests are of great extent, particularly in the mountain districts, as indicated by their names of Schwarzwald (Black Forest) Böhmerwald (Bohemian Forest), Thüringerwald (Thuringian Forest), etc. They abound in all the finest trees of the temperate zone, and furnish timber which can not be surpassed. The central plateau is more sparingly wooded, but the east part of the north plain has extensive tracts of oaks and beeches along the Baltic, and of pine with a considerable intermixture of birch in the interior.

17. Among domestic animals, the horned cattle of the districts along the North Sea and the Baltic, the sheep of Saxony, Silesia, Bohemia, and Moravia, and the swine of Westphalia, have long been famous. The horse, the noblest of domestic animals, appears to be much neglected. Game is very abundant, and includes, in addition to the smaller kinds, the boar and the wolf. Fish, both in the rivers and lakes, are very plentiful, but do not include many of the most esteemed varieties.

18. The inhabitants of Germany belong to two principal stocks—the Teutonic or German proper, and the Sclavonic. The latter, who originally entered Germany from the east, are found chiefly in Moravia, Bohemia, some of the Alpine valleys of Styria and Illyria, on the north slopes of Upper Silesia, and along the shores of Pomerania. Though of one stock, they are known in different districts by different names, as Czechs, Wends, Slowaks, etc. The former stock, to which the great body of the population belongs, are spread over the whole north, west, and south. The proportion between the two stocks is about one to six and a half. In addition to these, Italians prevail on the south side of the Alps, in Tyrol, Friuli, and Istria, and the French in the Rhenish provinces. The Greeks, Armenians, and Jews scarcely require to be particularized.

19. The chief branches of industry pursued in Germany are agriculture, cattle rearing, and mining. These are the great occupations of the people. Manufactures, in so far as steam-power is concerned, are not general; but many parts are distinguished for particular manufactures, especially linens, woolens, iron and steel wares, gold and silver work, glass, porcelain, etc. Leather is an important manufacture all over Germany; and the brewing of beer, the national beverage, is extensively carried on. Trade, formerly trammeled by the different rates of custom levied by the separate states, has recently received a fresh impetus from the institution of the commercial union, called the Zollverein, of which Prussia is the head, and of other commercial associations.

20. The characteristic feature in the political institutions of Germany is the number and variety of the sovereignties into which it is divided. No fewer than thirty-eight states exercise sovereign rights, and the modes in which they exercise them are of the most heterogeneous description—some claiming powers which border on despotism, others presenting themselves under the form of constitutional sovereignties, and others bearing the name and occasionally, though not always, performing the part of free towns or republics. Notwithstanding community of language, bodies so constituted have no natural bond of union; and hence the necessity of a common head, under which all the forces of these heterogeneous bodies might be concentrated, was felt at a very early period; and Germany was no sooner restored to nominal independence, by the dissolution of the Empire of Charlemagne, than recourse was had to an elective monarchy. In accordance with this principle what were called the electoral states, while retaining their individual independence, made choice for life of an emperor, to whom they swore allegiance, binding themselves to him and to each other in an indissoluble league, offensive and defensive. This elective monarchy, established in the ninth century, underwent many modifications, but was continued by a regular succession of emperors till the beginning of the nineteenth century, when it was brought to a termination in the person of Francis II., who renounced the name of Emperor of Germany for that of Emperor of Austria.

21. This change was one of the results of the victories of Napoleon, who, dissolving the old German Empire, formed another under the specious name of the Confederation of the Rhine, and declared himself its protector. In this character he promised to maintain its integrity; but the kind of protection he meant was soon explained, when, in 1810, he issued his fiat, simply declaring that all the countries between the mouths of the Scheldt and the Elbe were annexed to France. The effect of this decree was to extinguish several of the sovereignties which he had guaranteed, and deprive the Confederation of so much territory and population. His downfall, in 1813, made new arrangements necessary; and accordingly the Congress of Vienna, in 1815, established the German Confederation. The object sought to be obtained by this Confederation is declared to be the maintenance of the security of Germany, internally and externally, and of the independence and integrity of its respective and separate states.

22. The affairs of the confederacy thus constituted are managed by a representative assembly, called a Diet (Bundes-Versammlung), which meets at Frankfurt-on-the-Main (Austria presiding), and sits permanently, but has the power of adjournment. It acts either as a general assembly (plenum), in which every state has one or more votes, according to rank, the whole number being sixty-nine; or in a minor assembly (committee), in which, as the whole number of votes is only seventeen, the larger states have no more than a single vote, and the inferior states only a vote *in partibus*—several of them being grouped together, so as to give single votes by delegation; thus, while eleven states have a vote each, twenty-seven states have only six joint votes. The initiative is vested in the minor assembly or committee, which arranges the business generally, and decides what matters are to be submitted to the plenum; but no organic change can be made till sanctioned in the plenum, and carried by a majority of at least two thirds of its votes. In regard to peace and war, all the states must act federatively, or, in other words, no individual state can negotiate with the enemy separately; and the contingent of men and money which each must contribute is fixed generally according to the population.

23. The ordinary federal army actually counts 303,493 men, divided into ten corps d'armée and a reserve, composed as follows: 216,343 infantry of the line; 11,388 chasseurs, voltigeurs, and tirailleurs; 40,754 cavalry; 20,977 artillery (594 cannon); 2,915 pioneers and pontoniers; and 11,116 infantry of reserve; but these numbers, in accordance with a resolution of the Diet, 10th March, 1853, will be increased by 50,000 men. The following table will exhibit the principal political and military elements of the Confederation:

States.	Vote in Plenum.	Contingent. Men.	Contingent. Money.
1. Austria	4	94,822	298,312
2. Prussia	4	79,484	301,083
3. Bavaria	4	35,600	111,998
4. Saxony	4	12,000	37,752
5. Hanover	4	13,054	41,066
6. Wurtemburg	4	13,955	43,901
7. Baden	3	10,000	31,460
8. Hesse-Cassel	3	5,679	17,865
9. Hesse-Darmstadt	3	6,195	19,489
10. Holstein and Lauenburg	3	3,600	11,326
11. Luxemburg and Limburg	3	2,536	7,978
12. Brunswick	2	2,096	6,594
13. Mecklenburg-Schwerin	2	3,580	11,263
14. Nassau	2	4,039	9,525
15. Saxe-Weimar-Eisenach	1	2,010	6,323
16. Saxe-Coburg-Gotha	1	1,116	3,511
17. Saxe-Meinin.-Hildburghausen	1	1,150	3,618
18. Saxe-Altenburg	1	982	3,089
19. Mecklenburg-Strelitz	1	718	2,258
20. Oldenburg and Kniphausen	1	2,829	9,944
21. Anhalt-Dessau	1	529	1,666
22. Anhalt-Bernburg	1	370	1,165
23. Anhalt-Köthen	1	325	1,021
24. Schwartzburg-Sondershausen	1	451	1,419
25. Schwartzburg-Rudolstadt	1	539	1,697
25. Hohenzollern-Hechingen	1	145	456
27. Lichtenstein	1	65	174
28. Hohenzollern-Sigmaringen	1	356	1,119
29. Waldeck	1	519	1,632
30. Reuss (old line)	1	223	700
31. Reuss (cadet line)	1	522	1,642
32. Schaumburg-Lippe	1	210	661
33. Lippe-Detmold	1	721	2,267
34. Hesse-Homburg	1	200	629
35. Lübeck	1	407	1,279
36. Frankfurt	1	693	1,605
37. Bremen	1	485	1,526
38. Hamburg	1	1,298	4,083
Total	69	303,493	1,000,000

—in the minor assembly the first eleven of the above states have each one vote, the twelfth vote belongs to the states numbered 15 to 18 conjointly, the thirteenth to Brunswick and Nassau, the fourteenth to the two Mecklenburgs, the fifteenth to the states numbered 20 to 26, the sixteenth to those numbered 27 to 34, and the seventeenth to the free cities of Lübeck, Frankfurt, Bremen, and Hamburg conjointly.

24. After the French revolution of 1848, an attempt was made to replace the German Diet by a representative parliament, to meet at Frankfurt-on-the-Main. Such a body, composed of 500 representatives, did meet at Frankfurt, on the 30th March, 1849, and drew up a plan of representation, in accordance with which the first German National Assembly was elected, and met in the same city, on the 18th May. This assembly elected John Archduke of Austria to be lord-lieutenant or regent (reichsverweser) of this newly constituted German Empire. The same prince was in like manner elected regent by the Diet, then also sitting in the same city, and with this transaction the existence of that body may be said to have, for the time being at least, virtually ceased to exist. The new Assembly proceeded to form a constitution which, however, after being passed, was not recognized by the important states. Dissensions ensued, and on the 30th May, 1849, the Assembly resolved to transfer its place of meeting to Stuttgart. This resolution not being acquiesced in by the government, it resolved to remain at Frankfurt; but a large body of the members withdrew to Stuttgart, where the so-called German Parliament was summoned for the 6th of June. This was the final death-blow to that Assembly, which at one time seemed destined to play so important a part in German history.

25. Subsequently Prussia endeavored to form a confederation, with herself at the head of it. This plan was opposed by sundry states, including Austria; and the last-named state, proceeding to act on the old law of the Confederation, by which, since 1815, the Diet has been annually assembled at Frankfurt, convoked the Diet for May 10th, notwithstanding the remonstrances of Prussia. With the exception of Prussia and Oldenburg, all the states obeyed this summons. Subsequently to this period the pretensions of Prussia to form and head a separate confederation nearly involved Germany in a general war, which was, however, happily prevented. Meetings between the ministers of Prussia and Austria took place, and differences were so far arranged that these two leading powers, with the concurrence of the other states, united in attempting to re-constitute the German Confederation; but as yet

the various propositions to effect this object have resulted in no practicable determination, and Germany, in its political constitution, still remains subject to the principles of the Act of Confederation of the 8th June, 1815, and the Declaration of the 15th May, 1820.

26. As already mentioned, the German Confederation is composed of thirty-eight sovereign states. Kniphausen is also a sovereign state, but has no voice in the federal Diet. The German portions of Austria, Prussia, Denmark, and Holland are described under their appropriate captions. The descriptions of the states wholly within Germany form the special subjects of the following sections.

KINGDOM OF BAVARIA.

27. Bavaria (Baiern) is composed of two distinct portions of unequal size. The larger, comprising about seven eighths of the whole, is situate between latitudes 47° 19′ and 50° 41′ north, and longitudes 8° 53′ and 13° 50′ east; and is bounded north by Saxony, east by Bohemia and Austria, south by the Tyrol, Vorarlberg, and Lake Constance, and west by Wurtemburg, Baden, and the states of Hesse. The smaller, the Pfalz or Palatinate, lies west of the main portion and of the Rhine, which separates it from Baden, etc. The area of the Kingdom is 29,484 square miles.

28. Bavaria is a hilly rather than a mountainous country. A large portion, especially south of the Danube, is a plateau of considerable elevation; and, indeed, the whole of the main portion may be described as an upland valley, averaging about 1,600 feet high, intersected by numerous large streams and ridges of low hills. On all sides it is surrounded by hills of greater or less altitude: on the south the Noric Alps; toward Bohemia the Böhmerwald; on the northwest the Fichtelgebirge; on the north the Frankenwald, Rongebirge, etc., and on the western frontier the Spessartwald and the Alb. The only noteworthy interior ranges are—in the northwest the Steigerwald, and in the northeast the Franconian Jura, a low limestone range containing numerous remarkable stalactite caves. The Palatinate is traversed north and south by the north extremity of the Vosges.

29. The country belongs wholly to the basins of the Danube and the Rhine, with the exception of the northeast corner, which, through the Eger, appertains to that of the Elbe. The Danube intersects the main portion of the Kingdom from west to east, nearly in the center, and receives from the right the Iller, Lech, and Isar, which have their sources in the Noric Alps, besides numerous smaller streams, and from the left the Wornitz, Altmühl, Naab, and Regen. The Main traverses the north from east to west, and is navigable for steamboats from Bamberg to the Rhine. Its principal affluents are the Regnitz and the Saale. In the Palatinate there are no streams of importance, the Rhine being merely a boundary river.

30. The climate, except in the valleys of the great rivers, is comparatively cold; but Bavaria, in respect of its soil, is one of the most favored countries of Germany. Forests, chiefly of fir and pine trees, cover nearly a third of the surface.

31. In 1855 Bavaria contained 4,541,556 inhabitants, or 154.0 to the square mile. Of these 2,229,225 were males, and 2,312,331 females, and in reference to religion, the Roman Catholics numbered 3,176,333, the Protestants 1,231,463, other Christians 7,991. and the Israelites 56,003.

32. Agriculture is the chief occupation of the people. The principal crops are—wheat, rye, barley, and oats, but in some districts rice, spelt, maize, and buckwheat are raised, and also hops, tobacco, etc. The vine is also extensively cultivated, and many of the wines produced are of rare qualities. In the rearing of cattle and sheep the Bavarians are still far behind, and notwithstanding the extent and excellence of their pastures the stock generally is of inferior breed. Swine are reared in great numbers in all parts, and poultry and wild fowl are abundant.

33. Manufactures are singly very unimportant, being mostly on a small scale, and conducted by individuals of limited capital. The principal articles produced are coarse linens, woolens, cottons, leather, paper, glass, earthen and iron ware, jewelry, etc., and of these several form articles of export. But the most important manufacture of Bavaria is the brewing of beer—the universal and favorite beverage of the country. The principal mineral products are—salt, coal, and iron, with black lead and porcelain clay.

34. From its position Bavaria enjoys a considerable portion of transit trade, which is much facilitated by the perfection of its road system; and the means of communication have recently been greatly augmented by the completion of the König Ludwig Canal, which connects the Main, at Bamberg, with the Altmühl, a short distance above its confluence with the Danube, thus establishing direct water communication through the Rhine between the German Ocean and the Black Sea; and by the railroad from Munich through Augsburg, Nürnburg, and Bamberg to Hof, Bavaria is connected with the systems of north and west Germany.

35. Bavaria is a hereditary monarchy. The legislature consists of two chambers—the senate, constituted of the royal princes, archbishops, nobles, etc., and the chamber of deputies of members chosen one to every 7,000 families, or 35,000 persons. The deputies are chosen for six years, and the legislature must assemble at least once in three years. Each of the circles has a provincial government, consisting of two boards—one for the management of police, schools, etc., and the other of financial matters. Justice is administered by the supreme court of appeal and a number of inferior and local courts.

36. Education is strictly enforced in Bavaria, and no pupil can be removed from a lower to a higher school except on examination as to proficiency. The total receiving education in 1855 was about a fourth of the population. There are three universities, two of which (Munchen and Würzburg) are Roman Catholic, and one (Erlangen) Protestant, and in these the average number of students is 1,500, 600, and 400 respectively. There is no law-established church in Bavaria. The Catholics are under the charge of the archbishops of Bamberg and Munich, and the bishops of Augsburg, Eichstädt, Passau, Regensburg, Speyer, and Würzburg. The Protestants are under the direction of a general consistory and four provincial consistories. These functionaries are salaried by the government. Convents are numerous, but by an ordinance of the late king no female is allowed to take the vail until 33 years of age.

37. The Kingdom is divided as follows:

Circles (Kreise).	Area. sq. m.	Popula. (1855).	Capitals.	Popula.
Ober-Baiern	6,570	744,151	Munchen (Munich)	166,776
Nieder-Baiern	4,141	554,013	Passau	10,211
Pfalz	2,299	587,384	Speyer (Spire)	9,249
Ober-Pfalz and Regensburg	3,722	471,906	Regensburg (Ratisbon)	23,702
Ober-Franken	2,664	499,913	Baireuth	17,312
Mittel-Franken	2,948	533,587	Nürnburg	46,108
Unter-Franken and Aschaffenburg	3,449	589,076	Würzburg	27,411
Schwaben and Neuburg	3,691	561,576	Augsburg	38,197

38. Munich (Munchen), on the Isar, is the capital. Latitude 48° 8′ 45″ and longitude 11° 36′ 38″. The original nucleus of the city is near its center, and was at one time surrounded by walls and ditches, and entered by lofty turreted gates, a few of which latter still remain. This ancient town, though containing the government offices and many public edifices, is surpassed both in extent and magnificence by the new town, which has risen up to the north and west with almost unexampled rapidity. The principal public edifices of Munich are the Cathedral and several other fine churches, the Royal Palace, the Gallery of Sculpture, the Picture Gallery (one of the richest collections in the world), the University, the Library, with 540,000 volumes and 1,600 manuscripts, etc. The manufactures of Munich are numerous, and in some particular branches, as jewelry, mathematical and musical instruments, carriages, etc., have acquired a high name. Its trade is also valuable, and has rapidly increased since its connection with Augsburg, etc., by railroad. For the promotion of science, literature, and the fine arts, no city of equal extent has more numerous societies and facilities. Many pretty villages around the capital are much visited on holidays.



GALLERY OF FINE ARTS.



STATUE OF GUTTENBERG.

39. Nürnburg, on the Pegnitz, the Ludwig Canal, and great Bavarian railroad, was once the greatest and most wealthy of all the free imperial cities of Germany, and is still one of the most interesting. It is surrounded by walls and ditches, and is divided into two sections by the river on which it stands, over which numerous handsome bridges are thrown. Its churches and many of its public buildings are extremely elegant. Almost all the streets derive their names from the particular branches of industry carried on in them, and many important inventions had their first existence here. The industry of the town has greatly declined, but it still manufactures and carries on an extensive trade in wire, musical and mathematical instruments, toys, needles and pins, etc.

40. Augsburg, at the confluence of the Wertack with the Leck, is also a walled town, and though irregularly built, contains many handsome edifices, and some elegant squares adorned with fountains. Its town-hall is esteemed the finest in Germany, and among other remarkable objects are the Bishop's Palace (now used for government offices, and in which the Confession of Augsburg was presented to the emperor in 1530), the Halle, the Public Library, the Cathedral, etc. The city possesses a polytechnic institution, a gallery of paintings, an orphan asylum, and numerous educational institutions, and 15 churches. Augsburg has long been distinguished by its industrial spirit, and though not so important a place as formerly, is the seat of extensive manufactures of cotton, flax, silk, paper, etc., and of the national military foundery. An extensive trade is also done in printing, engraving, and bookbinding. But the modern importance of the city is owing chiefly to its being a center of banking and exchange operations, and as a money market it is only second to Frankfurt. It is also the emporium of the merchandise and the chief mart for the sale of the wines of Italy, Switzerland, and the south of Germany, and hence has an extensive transit trade.



MAXIMILIAN STRASSE, AUGSBURG.

41. Regensburg (Ratisbon), at the confluence of the Regen with the Danube, is also an ancient and celebrated town, and from 1662 to 1806 was the seat of the German Diet. It has many fine buildings. Various manufactures are carried on, and its trade on the Danube is of great importance. Würzburg, on the Main, is one of the most ancient cities of Germany, and has considerable manufactures and an active river trade. Its university, founded in 1403, has a library of 120,000 volumes. Bamberg is a well-built, industrial, and commercial city on the Regnitz. The principal manufactures are porcelain, gloves, jewelry, musical instruments, and marble-wares. The beer of Bamberg is of high celebrity, and is largely exported. Kronach is noted for its coal mines, and is the entrepôt of the timber trade which this country carries on along the Rhine as far as Holland. Passau, at the confluence of the Inn and Ilz with the Danube, is also a place of considerable trade. Spire (Speyer) is a small town on the Rhine, in the Palatinate. Landau, 17 miles southwest of Spire, is one of the federal fortresses of Germany.

42. The Bavarians are descended from the Boii, a Celtic tribe who subdued the native inhabitants about 600 B. C.; and these in turn were conquered by the Romans, who retained the territory until the fall of the Empire, when it was overrun by the Ostrogoths and Franks. The sovereignty was subsequently assumed by Charlemagne, and on the death of that monarch the kings of the Franks and Germans governed it by their lieutenants, who bore the title of margrave, afterward converted into that of duke, and latterly (1623) into that of elector. In 1805 Bavaria was raised by the treaty of Presburg to the rank of a kingdom.

KINGDOM OF SAXONY.

43. Saxony (Sachsen) is situate between latitudes 50° 15′ and 51° 24′ north, and longitudes 11° 56′ and 15° 3′ east; and is bounded northwest, north, and northeast by Prussia, southeast and south by Bohemia, southwest by Bavaria, and west by Reuss, Saxe-Weimar, and Saxe-Altenburg. Greatest length, northeast and southwest, 134 miles, and greatest breadth 73 miles: area, 5,776 square miles.

44. The surface, though much broken, may be regarded as an inclined plane, sloping from the Erzgebirge northward. In the more elevated districts the scenery is wild, and sometimes almost desolate. Where the surface begins to lower, the ramifications proceeding from the principal range form the sides of beautiful and fertile valleys, which, as they flatten down, widen out into plains. The loftiest summits are generally composed of granite and gneiss, and are so rich in minerals that the ores (erz) contained in them have given name to the whole chain. To the east, on the right bank of the Elbe, the Erzgebirge is continued by the Reisengebirge, a branch of which crosses a considerable portion of the district in that direction.

45. With the exception of a very small portion of the east, which sends its waters to the Baltic by tributaries of the Oder and Spree, the whole of Saxony belongs to the basin of the Elbe, which river traverses the country in a northwest direction for 70 miles. The country west of the Elbe is mostly drained by the head-waters and tributaries of the Mulde and Elster, all of which rise in the Erzgebirge, and join the Elbe beyond the frontier. The lakes, particularly in the north and northeast, are numerous, but individually insignificant.

46. The climate is milder than that of most countries of Europe under the same latitude. The mountain districts, however, are cold and bleak. The soils are only of medium fertility, but there is very little waste land, and such occurs chiefly in the mountains. About one fourth of the Kingdom is covered with forests, which secure abundance of game, and not unfrequently harbor wolves and bears. The lakes and rivers abound in fish—shad, eels, salmon, carp, pike, and trout, and in some of the streams pearls are found.

47. Throughout Saxony the hand of industry is everywhere visible. Two thirds of the whole is under cultivation or in meadow, and the remainder is either occupied by valuable woods or equally valuable mines. The most important crops cultivated in rotation are rye and oats, next to these ranks barley, and last of all wheat; and the potato is universal. The chief subsidiary crops are—pulse, rape, turnips, oil-seeds, hops, tobacco, flax, teasel, madder, and other dye-plants. All the common orchard fruits are very abundant; and considerable attention is paid to the culture of the vine. Heavy crops of the finest grasses are everywhere raised, and much of the fodder is used on dairy stock, from which large quantities of cheese and butter are obtained. But the superiority of Saxony is nowhere so apparent as in its sheep, which have been much improved by crossing; and the horses and swine are both of superior breeds.

48. The minerals of Saxony comprehend almost every one of economical value, with the exception of quicksilver, and gold is only found in small quantities. Silver, in connection with both copper and lead, is extracted annually, on an average, to the amount of 45,000 ounces. The principal localities of this metal are Freiberg, Annaberg, and Schneeberg. The copper and lead ores which yield it are of still greater value. Tin, iron, and cobalt are also largely mined, and zinc, bismuth, and arsenic on a smaller but still important scale. For the conversion of these, the extensive forests and the lignite and coal, which are found in numerous seams, furnish abundance of fuel. Other minerals of value are—alum, copperas, mountain-green, ochres, and fullers', potters', and porcelain earths; and the quarries furnish granite, sienite, porphyry, basalt, roofing-slates, pavement sandstone, limestone, and marble; while numerous beautiful crystals and pebbles, including in the former rubies, sapphires, garnets, topazes, etc., and in the latter jaspers, agates, and carnelians, are found both in the Erzgebirge and in the districts of Leipzig and Meissen.



MARKET-PLACE, LEIPZIG.

49. The manufactures connected with the mineral products, taken in conjunction with the mining operations themselves, give employment to a large portion of the inhabitants; but there are other branches—those of woolen cloths and porcelain, distinguished for the ability and success with which they are carried on, and of late years an immense progress has been made in the manufacture of cotton goods. Other very important tissues are linen, silk, and mixed goods, and also those of worsted, flax, etc., and among the manufactures of the Kingdom are enumerated lace, hosiery, straw-plait, wooden-wares, machinery, chemical products, musical instruments, paper, types, and books. The trade created by all these branches of industry is necessarily great. At the fairs of Leipzig alone business to the amount of $45,000,000 is annually transacted, and every facility is given by railroad, river, and other means of communication, for the development of both external and internal commerce.

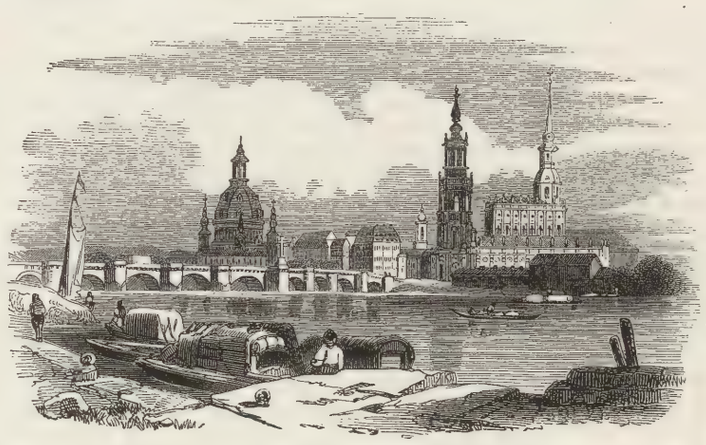
50. Saxony is a limited monarchy, in which the executive power is vested solely in the king, and the legislative in the king and two chambers. Justice is administered by courts of primary, secondary, and final resort. The first includes all inferior and local courts; the second consists of the four courts of appeal at the several provincial capitals, and the third is the supreme court at Dresden, the jurisdiction of which extends over the whole Kingdom. The army is raised chiefly by conscription, and all male citizens, on attaining their 20th year, are liable to serve for six years in the army and three in the reserve.

51. At the head of the educational establishments of the Kingdom is the University of Leipzig, and next to it are 7 gymnasia (located in the principal towns), 11 normal schools, and a considerable number of upper, town, and grammar schools. For elementary instruction at least one school is open in each parish, and all children between 6 and 14 years of age are understood to be in attendance. In 1851, of 315,185 children of school age, 311,454 were actually attending school. In regard to religion, universal toleration is guaranteed; but the only religious bodies specially recognized by the state are Lutherans, Calvinists, and Roman Catholics. The Lutherans form nineteen-twentieths of the whole population.

52. For administrative purposes the Kingdom is divided as follows:

Circles (Kreise).	Area, sq. m.	Popula. (1855).	*Capitals* and Chief Towns.
Dresden	1,674	528,714	DRESDEN, 108,732; Freiberg, 14,927; Meissen, 9,172; Glossenhain, 7,105; Pirna, 6,822.
Leipzig	1,342	454,262	*Leipzig*, 69,986; Döbeln, 6,675; Grimma, 5,684; Leissnig, 5,123.
Zwickau	1,789	759,328	*Zwickau*, 10,327; Chemnitz, 32,712; Plauen, 12,926; Annaberg, 9,137; Schneeberg, 8,312; Glauchau, 8,973; Reichenbach, 7,812; Mittwerda, 7,301; Zschoppau, 7,029; Johann-Georgenstadt, 4,286.
Bautzen	971	296,771	*Bautzen*, 12,103; Zittau, 11,734; Ebersbach, 6,127; Herrnhut, 849.
Total	5,776	2,039,075	

53. Dresden, the capital, is situate on both banks of the Elbe, in latitude 51° 3′ 18″ and longitude 13° 44′ 47″. The principal edifices are the Royal Palace, the Picture Gallery, the Town Hall, the House of Assembly, Arsenal, and Mint on the west side of the river, and several palaces, etc., on the east. A handsome stone bridge, 1,420 feet long, unites the two sections of the city, and below the river is crossed by a bridge connecting the railroad to Prague, Görlitz, and Prussian Silesia. Dresden has ample means of education, and is remarkably rich in collections of art and antiquities. The manufactures are not important—the china, for which the city is famed, being chiefly made at Meissen, 14 miles distant. In the neighborhood there are coal mines, iron and glass works, and manufactures of chemicals. Its commerce is considerable, and has been much developed since the opening of the railroads leading from it; and a good deal of business is done with the upper Elbe country, by means of steamers which ply as far as Testchen. Freiberg is a large town on the Mulde, and is noted for its rich silver mines. In its neighborhood are the mining villages of Hasbrück, Himmelsfürst, and Bescheert-Glück.



CITY OF DRESDEN.

54. Leipzig, the largest commercial town, is situated on the White Elster, where it is joined by the Pleisse and Parde, 60 miles northwest Dresden. It stands in a wide plain, and has extensive suburbs, which are divided from the town by gardens, replacing the old fortifications. The principal edifices are the Council Hall, the Palace, the Church of St. Nicholas, and numerous others, the Cloth-sellers' and Booksellers' halls, the new Exchange, etc. Its university, founded 1409, ranks as one of the first in Germany. Leipzig is the grand emporium of the book trade of Germany, and has three annual book fairs, attended by a vast concourse of people from most countries of Europe, and a wool market is also held here in May. Its manufactures are various and valuable, and its general trade extensive. Railroads connect it with Dresden, Berlin, etc.

55. Zwickau, on the left bank of the Mulde, and on the Saxon and Bavarian Railroad, has manufactures of woolen and cotton goods and chemicals, and a considerable trade. In its vicinity are extensive coal mines. Chemnitz, 20 miles east-northeast Zwickau, is chiefly employed in the manufacture of cotton, woolen, and silk goods. Annaberg, Schneeberg, and Johann-Georgenstädt are three small towns, among the hills south of Chemnitz, noted for their mining and manufacturing industry, and particularly for the great quantity of lace they produce. Plauen, on the Elster, is also a considerable manufacturing town. Bautzen, on the Spree, has also several large manufactories and an active general trade. The railroad to Prussian Silesia passes through it; and among other manufacturing towns may be mentioned Zittau, Ebersbach, Neu-Eybau, Gros-Schonau, and Herrnhut, the latter the cradle of the Herrnhuters or United Brethren.

56. Saxony owes its name to the most ancient and distinguished of the original nations

of Europe—the same which in early times penetrated far into France, and ultimately made themselves masters of the finer portion of Great Britain. It is impossible, however, to trace back the history of the existing Kingdom to a very remote period, though the reigning family claim descent from Wittekind, who was vanquished by Charlemagne.

57. The earliest existing records connected with the present Kingdom belong to the tenth century, when Henry I., margrave of Meissen, made considerable additions to his territories, which from that time came to be distinguished by the common name of Saxony. In 1422 Saxony became an electorate, in the person of Henry the Brave. His successor had two sons, Albert and Ernest, who shared the electorate between them, and became the heads of two separate branches, of which the Albertine is represented by the King of Saxony. Its history now becomes extremely interesting, being, in fact, that of the Reformation, which here had its cradle.

58. The more recent history of Saxony furnishes few incidents deserving of particular notice. In 1806 it was formed into a kingdom by Napoleon, when Frederick Augustus became the first king; but in consequence of his adherence to the emperor, though he was allowed to retain his title, his estates were considerably diminished in area by the Congress of Vienna. Still, even within its present limits, Saxony holds an important station among the German States, and possesses almost inexhaustible sources of prosperity, both in its natural resources and in the industry and intelligence of its people.

KINGDOM OF HANOVER.

59. Hanover, on the northwest of Germany, is situated between the latitudes 53° 52′ and 57° 18′ north, and the longitudes 6° 39′ and 11° 35′ east; and is bounded north by the German Ocean and the duchies of Holstein and Lauenburg, from which it is separated by the Elbe, east-northeast by Mecklenburg-Schwerin, east by Prussia and Brunswick, south by Prussia, Saxony, and Rhenish Prussia, and west by Holland. It is of very irregular shape, and by the intersection of Oldenburg in the north, and a part of Brunswick in the south, is divided into three distinct portions—the first and far largest forming Hanover proper, situate on the east, and tolerably compact; the second on the west, and almost separated from the former by Oldenburg and Rhenish Prussia; and the third in the south, completely isolated from the other two. Besides these three principal, there are three minor portions, all in the south, and so small as not to require separate notice. Area 14,846 square miles.

60. The surface, except in the south, where it is traversed by the Harz Mountains, which in some places attain an elevation of 3,000 feet, is comprised in the great plain of northern Europe, and in the west, toward the sea, is almost a dead level. The only exception to the general flatness is caused by branches of the Harz of moderate height, one of which stretches in a north-northwest direction, and forms the watershed between the Ems and the Weser. In addition to these two rivers—the former of which traverses the west portion of the Kingdom from south to north, and the latter the west of the east portion, and drains the greater part of it either directly or by its combined tributaries, the Leine and the Aller—the only other river of consequence is the Elbe, which skirts the northeast, and bounds a considerable portion of the north, but is not augmented within it by any large tributary. The Harz are rich in minerals.

61. The climate is remarkably mild, but changeable. The mean annual temperature is 48°—vibrating between 32° and 95° Fahr. The prevailing winds are from the west. On the whole, the country is healthy, and in the higher southern regions the air is highly salubrious. Fogs prevail along the coast. In the low alluvial flats the soil is very fertile, but usually so overcharged with moisture as to be fit only for meadows, which yield heavy crops of hay or feed large herds of cattle. On the higher grounds the soil is thin and sandy, and so poor as often to be covered with heath or deep beds of peat. But after deducting these two classes of soil, there remain extensive tracts of arable land amounting to a third of the whole, of good medium fertility. Forests occupy nearly a sixth part of the surface, and consist of hard wood and pine in nearly equal quantities, which are extensively used in smelting iron ore.

62. More corn is produced than is required for consumption. Flax also, for which much of the land is admirably adapted, is extensively raised, as are also tobacco, chiccory, etc. The domestic animals are generally of superior breeds. Poultry, especially geese, is reared in vast numbers in the marshes, and the rearing of bees is generally practiced among the moors. As a whole, rural husbandry forms the great branch of national economy. The mines in the Harz and their offshoots make annually very valuable returns, and among these are a small quantity of gold and considerable silver, about 150 tons of copper, 4,000 tons of iron, and some zinc. Coal and lignite are also extensively mined, besides other minerals of less importance.

63. In comparison with these two branches—agriculture and mining—manufactures are on a limited scale. The most important are the tissues of flax and hemp; and other articles deserving of notice are—hosiery, ribbons, leather, chemical products, beer, and spirits. The "osnaburgs" of Hanover are well known in the market, and both woolen and cotton goods are more or less manufactured. Commerce has the advantage of three navigable rivers and a considerable sea-coast, and the government has been as forward as any other in Germany in availing itself of railroads, which already communicate in all directions with the great continental trunk lines, and are in course of being still farther extended. Hanover, however, has not much of its own produce to export, and hence the greater part of its trade is transit, which in recent times has made a respectable progress. It possesses several ports, among which the first is Emden. The commerce of the country, however, is mostly conducted through Bremen and Hamburg.

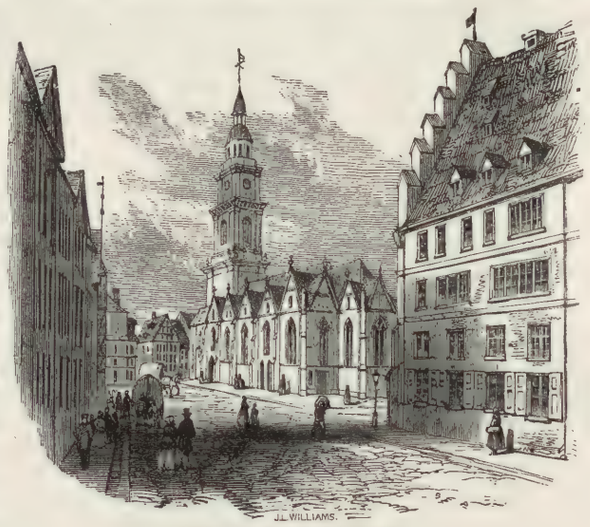
64. Hanover is a hereditary monarchy, in which the salic law excludes females from the succession. Its constitution is based on that of England, but with considerable modification, and since 1849 more of the popular element has been introduced into its workings. The legislative body consists of two chambers. The king has a privy council to advise him in state affairs, and he rules through a responsible ministry. The judiciary consists of a supreme court of appeal and nine chanceries or district courts, besides the magistracies of towns, and the manorial and minor royal courts, as primary tribunals.

65. The population, considered in respect to religious creeds, is thus divided: Lutherans 1,494,033, Reformed 95,220, Roman Catholic 217,367, other Christians 1,071, and Jews 11,562. Religious matters are directed by six Lutheran and two Roman Catholic consistories. The Catholics are almost entirely confined to Hildesheim and Osnabrück, and the Jews to those two provinces and Hanover. Education has received a laudable attention, and is under the supervision of a superior council. There were in the Kingdom (1852) 3,709 primary schools, 17 gymnasia, 13 progymnasia, and 5 normal schools; besides numerous industrial and polytechnic schools. The national seat of learning is the University of Göttingen.

66. Hanover is divided into seven landdrosteien or circles:

Landdrosteien.	Area, sq. m.	Popula. (1852).	*Capitals* and Chief Towns.
Hanover	2,332	349,958	Hanover, 42,484; Hameln, 6,879; Neinburg, 4,722.
Hildesheim	1,724	367,883	*Hildesheim*, 14,633; Gottingen, 11,895; Goslar, 7,928; Munden, 5,602.
Lüneberg	4,344	333,764	*Lüneburg*, 12,329; Celle or Zell, 12,272; Harburg, 5,712.
Stade	2,626	279,834	*Stade*, 6,473; Varden, 5,103; Altenbrück, 2,799; Bremervorde, 2,812.
Osnabrück	2,417	261,965	*Osnabrück*, 12,160; Meppen, 2,497.
Aurich	1,158	185,129	*Aurich*, 4,508; Emden, 13,807; Leer, 7,288; Norden, 6,214.
Klausthal	245	35,720	*Klausthal*, 9,357; Callerfeld, 4,207; St. Andreasberg, 4,016; Altenau, 1,817
Total	14,846	1,819,253	

67. Hanover, the capital, is situate on a sandy plain at the confluence of the Leine and Ihre, and consists of four parts, named the Alstadt, Ægidien-Neustadt, Neustadt on the left of the river, and Gartenhausen, to which may be added the new suburb, Linden. There are several manufactures and a considerable transit trade. In the immediate neighborhood are the two royal residences of Mont Brilliant and Herrenhaussen, the latter of which has a fine botanic garden.



CHURCH OF ST. GILES, HANOVER.

68. Hildesheim, upon the Innerste, 19 miles by railroad from Hanover, is a busy commercial town. It was once fortified, and is still entered by seven gates, but the fortifications have been thrown down, planted, and converted into promenades. It has many fine buildings, among which are a Gothic cathedral of the eleventh century, the lunatic asylum, a gymnasium, arsenal, barracks, etc., also a seminary for priests, with a fine library. The manufactures consist chiefly of lacquer-ware, wax tapers, soap, starch, vinegar, leather, and tobacco; and there is a considerable trade in linen and yarn. Hildesheim is the see of a Roman Catholic bishopric, founded by Charlemange in 798, and once formed an important member of the Hanseatic league. Goslar, 26 miles from Hildesheim, is a considerable town, and in the vicinity are several furnaces, and immense slate quarries. Göttingen, 60 miles north of Hanover, is a fine, well-built town at the foot of the Heimberg, upon the right bank of the Neu-Leine, a canal drawn from the river of the same name. It is the seat of a celebrated university, which possesses a magnificent library of 420,000 volumes. There are, besides, a royal society of sciences, an observatory furnished with excellent instruments, a botanic garden, an academic museum, etc., and it has also many valuable manufactures and a good trade. Munden, at the confluence of the Fulda and the Werra, is one of the most commercial towns in the Kingdom, and is noted for its stone quarries.

69. Lüneburg, upon the Ilmenau, in the midst of extensive heaths, is a flourishing town with a considerable trade. It has one of the richest salines of Europe, and extensive quarries of limestone. Harburg, on the right bank of the Elbe, opposite Hamburg, is a flourishing town, and is connected with Hamburg by a ferry. Celle, near the Aller, a large town, is the seat of the supreme court of justice for the Kingdom, and has a large prison. Stade, on the Schwinge, is a small fortified town. Bremervorde, 16 miles southwest, on the Oste, has ship-building yards, and in the neighborhood turf bogs. Lilienthal, near Bremen, is noted for an observatory, where Dr. Harding, in 1804, discovered the planet Juno. Altenbrück, whose inhabitants are chiefly employed in commerce and navigation, is the principal place in the interesting country of Hadeln. In its neighborhood are the Uhlemul waters, similar to those of Pyrmont.

70. Osnabrück, upon the Haze, is noted for its linen. It was formerly the capital of a sovereign bishopric, which was secularized after the Reformation. Aurich, upon a navigable canal which extends from Emden, is a small town with a lyceum, and is noted for its horse markets. Emden, on the northeast shore of the Dollart, near the mouth of the Ems, is a large sea-port town with a good roadstead. It has numerous manufactures, and is considered one of the first commercial towns of the Kingdom. Norden, also a commercial town, 16 miles north of Emden, has a port and ship-building yards. Klausthal is noted for its lead and silver mines, which are considered the richest in the Harz Mountains. It has a mint, a gymnasium, and a school of mines and forests. The other principal mining towns are St. Andreasberg, Altenau, Grunz, and Königshutte. Grunz, at the western extremity of the Harz, is noted for the immense subterranean works excavated for the draining of the mines.

71. On the death of Henry the Lion (1195), his possessions, then consisting only of Brunswick and Lüneburg, were divided among his three sons—the issue of his marriage with a daughter of Henry II. of England. William, the third of the sons, was the only one who had male heirs, and through them the lines of Brunswick-Wolfenbüttel and Brunswick-Lüneburg were ultimately formed. Ernest Augustus, one of the princes of the latter branch, after

making several important additions to his territory, was raised to the dignity of Elector of Hanover, in 1692, and married the daughter of the Elector Palatine, grand-daughter of James I., and niece of Charles I. of England. He was succeeded in 1698 by his son George Louis, who in accordance with the Revolution settlement of 1688 became king of England, under the style of George I., on the demise of Queen Anne, in 1714. The connection thus formed continued through the four succeeding reigns, during which considerable additions of territory were made. In 1814 the Congress of Vienna raised Hanover to the rank of a kingdom. Two independent crowns were thus worn by George III. and IV. and William IV.; but on the accession of Victoria to the British throne, the salic law placed the crown of Hanover on the head of the nearest male heir, and eldest brother of the last king, Ernest Augustus, better known as the Duke of Cumberland.

KINGDOM OF WURTEMBURG.

72. Wurtemburg lies between latitudes 47° 35′ and 49° 36′ north, and longitudes 8° 15′ and 10° 32′ east; and is bounded north by Baden, east by Bavaria, south by Lake Constanz, and southwest and west by Baden. Length 138, and breadth from 22 to 97 miles—area 7,517 square miles.

73. This territory belongs to the basins of the Rhine and the Danube, and except in its southern portion is mountainous or hilly. The principal chain by which it is traversed is the Alps of Swabia, which unites on the southwest with the Schwarzwald, and separates the basins of the Danube and the Neckar, the latter of which drains the greater part of the Kingdom. The highest points are not more than 3,800 feet elevation, and in many places the scenery is highly picturesque. A portion of Lake Constanz belongs to Wurtemburg, and there are other small lakes in the south, the chief of which is the Federsee.

74. The climate is generally temperate, but variable; and the soil, particularly in the valleys of the Tauber, the Neckar and its affluents, and on the Lake Constanz, is remarkably fertile. The Alps and Schwarzwald are covered with vast forests, and contain valuable mines of coal and iron, argentiferous lead and copper, cobalt, etc., and there are quarries of excellent building-stone and marble. Wurtemburg has a great many mineral springs—the best frequented baths are those of Wildbad, the only thermal springs in the Kingdom, and there are also large deposits of salt, with salt springs.

75. Agriculture employs the great body of the people. The ordinary cereals are raised in much greater quantities than required for consumption. The potato is the principal sustenance of one fourth of the people. The vine is limited to the valleys of the Neckar and Tauber, and to the shores of Lake Constanz. No country in Germany produces fruit in so great abundance. The beet root is cultivated for the manufacture of sugar, and hemp, lint, tobacco, and hops are raised in small quantities. The rearing of horses, cattle, and sheep is an important branch of industry. In the working of the iron and coal mines about 1,000 men are employed. Manufactures are comparatively unimportant; they comprise linens, woolens, silks, carpets, hosiery, leather, porcelain, hardware, and tobacco; and breweries and distilleries are numerous. The transit trade is large, chiefly by the navigation of the Neckar, and the railroads from Stuttgart, north to Heilbronn, and south by Ulm, etc., to Lake Constanz.

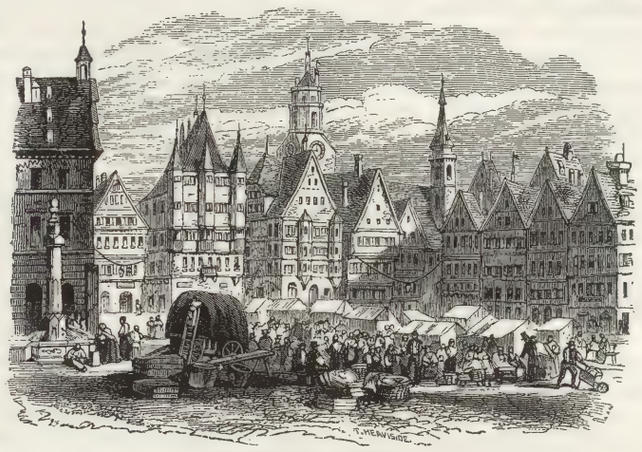
76. Wurtemburg is a hereditary constitutional monarchy. The legislature consists of two chambers—the upper consisting of the royal and mediatized princes and heads of the principal noble families, and the lower or house of representatives consists of 94 members, including 13 of the inferior nobility, 6 Protestant superintendents, the Catholic bishop and other dignitaries, the university-chancellor, 7 deputies from the chief towns, and a representative from each rural district, elected every six years. The chambers are called together every three years, or oftener if necessary. The administration is conducted by six ministers of state, who with other high officers form the privy council. Justice is administered by the supreme judicial court at Stuttgart, and by provincial and communal courts.

77. Religious affairs are under the charge of Protestant and Roman Catholic consistories. The proportion of Protestant population to Catholic is as two to one, and besides these denominations there are about 12,000 Jews. In respect of education Wurtemburg ranks high, and has long been favorably distinguished for the number and excellence of its educational establishments. Each commune, and even hamlet, has its primary school, attendance at which is obligatory on children between the ages of 6 and 14 years, and the number actually at school is in the proportion of one to six of the whole population. The University of Tubingen is one of the most celebrated in Germany; and in the larger towns there are normal, polytechnic, military, and other professional schools. Literary and scientific associations are numerous, and many of them possess extensive libraries, and collections of art, painting, and antiquities.

78. Wurtemburg is divided into four kreise or circles:

Circles.	Area, sq. m.	Pop. (1855).	*Capitals* and Chief Towns.
Neckar	1,281	501,034	*Ludwigsburg*, 10,769; Heilbronn, 13,968; Esslingen, 8,213; Cannstadt, 5,112.
Schwarzwald	1,889	443,872	*Reutlingen*, 12,367; Tubingen, 8,779; Rottenberg, 6,817; Ehningen, 5,696; Tullingen, 5,512; Calw, 4,713.
Jaxt (Jagst)	1,983	374,913	*Elwangen*, 3,288; Gmund, 7,108; Hall, 7,327; Shorndorf, 4,207.
Donau (Danube)	2,412	413,444	*Ulm*, 21,076; Biberach, 6,209; Goppingen, 5,937; Kircheim, 6,112; Ravensburg.
Total	7,517	1,733,263	Stuttgart, 46,507.

79. Stuttgart, the capital, is situate on the Nesenbach, a small affluent of the Neckar, about two miles above its confluence, in latitude 48° 46′ 36″, and longitude 9° 10′ 52″. It is surrounded by hills covered with vineyards and orchards arranged in terraces to their very pinnacles, and is entered by an avenue of poplars. The city is mostly well-built, and has several broad and handsome streets and fine squares, in one of which is the royal palace, a freestone edifice, fronting on one side of a fine park. The old palace in the same square, the cathedral with tombs of the old dukes, the palace of the princes, the parliament-house, city hall, court-houses, etc., are other principal edifices; and here are a public library containing 200,000 volumes and 2,000 manuscripts, a museum of natural history, royal cabinet of coins and medals, antiquities and maps, and the royal library of 50,000 volumes. Printing and book-binding form chief branches of its industry; and it has some manufactures of woolen and cotton goods, jewelry, mathematical and musical instruments, perfumery, gloves, carpets, etc., breweries and vinegar works. A considerable trade is also carried on, and, next to Leipzig and Berlin, it is the greatest book mart of Germany. In the vicinity, some good effervescing wine is made; and near it is Cannstadt, a favorite watering-place, and Hohenheim, with a royal palace, and schools of agriculture and rural economy, and a large nursery.



MARKET-PLACE, STUTTGART.

80. Ludwigsburg, ten miles north of Stuttgart, is a small town with a royal palace (Ludwigslust), a cannon foundery, manufactures of cloth, linen, and porcelain, a military academy, and a house of correction for females. At Asperg, four miles northwest, is the castle of Hohen-Asperg, used as a state prison. Heilbronn, on the Neckar, is an industrious manufacturing and trading town, with stone and gypsum quarries, and is connected with Stuttgart by railroad. Esslingen is also a considerable town.

81. Reutlingen, on the Eschatz, 20 miles south of Stuttgart, is an inclosed town, and has manufactures of leather, lace, net, paper, clocks, and watches. It was once an imperial city, and is noted as the first town in Swabia that embraced the Reformation. Tubingen, at the influx of the Ammer into the Neckar, is celebrated for its university, belonging to which is an observatory, botanic garden, cabinet of natural history, and a library of 80,000 volumes. In its old church are collected thirteen splendid tombs of the counts and dukes of Wurtemburg, the earliest bearing date 1454. The town has manufactures of woolen cloths, gunpowder, etc. Wildbad, in a valley 1,323 feet above the sea-level, has thermal waters.

82. Elwangen is a small town on the Jaxt, and is chiefly employed in bleaching and tanning. Gmund is an old walled town on the Rems, and has several churches, ancient conventual buildings, a fine town-hall, asylums for the blind and deaf mutes, etc. Its manufactures comprise jewelry, wooden-wares, and woolen stuffs. Hall, on the Kocher, was formerly an imperial city. It is inclosed by walls, and has several churches, a fine town-hall, a richly-endowed college, a mint, hospital, etc., and, next to Ulm, the greatest number of sugar refineries of any town in the Kingdom. It has also soap and other factories, and a large trade in livestock. In its vicinity are valuable salt springs.

83. Ulm, at the confluence of the Blau with the Danube, is an ancient town, and was formerly a free imperial city, and is strongly fortified. Its manufactures are valuable, and it is largely employed in sugar-refining. It has an active transit trade. Neu-Ulm, one of its suburbs, is on the opposite side of the Danube, in the Bavarian territory. It is one of the federal fortresses of Germany. Biberach, on the Riss, is engaged chiefly in weaving linen and mixed fabrics, and in bleaching, tanning, and fur dressing. Göppingen, on the Fils, has woolen cloth and earthenware manufactures, and a trade in wool. Kircheim is a neat town, and manufactures cotton and woolen goods and toys, and contains a royal palace.

84. Wurtemburg derives its name from a castle near Stuttgart, the principal seat of the reigning family. It was originally a county, and in the fifteenth century was erected into a dukedom. The French overran the country in 1796; but the duke having made his peace with Napoleon, his territories were extended in 1800, and created an electorate in 1803. In 1806 they became a State of the Rhine Confederation, having previously been elevated into a kingdom. At the peace of 1815 the "status quo" was allowed.

GRAND DUCHY OF BADEN.

85. Baden lies between latitudes 47° 32′ and 49° 42′ north, and longitudes 7° 27′ and 9° 43′ east; and is bounded—north, by Hesse-Darmstadt and Bavaria; east, by Bavaria, Wurtemburg, and Hohenzollern; south, by Switzerland, and west, by France and the Palatinate. Its greatest length is about 166 miles, and the breadth varies from 13 miles to 92 miles. Area 5,916 square miles.

86. Baden is decidedly mountainous, being traversed to a considerable extent by the lofty plateau of the Schwarzwald or Black Forest, which by its west side forms the range of romantic precipices bounding the valley of the Rhine. These mountains are intersected with valleys of greater or less extent.

87. Baden belongs entirely to the basin of the Rhine and Danube; the former draining the far greater portion of the surface, while the latter occupies only a small portion on the southeast corner where it has its rise. The torrents which rush down the steep sides of the Black Forest hastening to the Rhine are almost without number. A considerable part of Lake Constanz, and the whole of the Uberlingersee and Zellersee belong to Baden. The variety, if not the abundance of minerals is very great. Gold, silver, copper, cobalt, manganese, lead, and calamine are enumerated; but all these are surpassed in intrinsic value by the deposits of iron. In mineral springs Baden is particularly rich, and of these not a few have become very celebrated.

88. The climate is greatly diversified by the nature of the surface. The open valleys of the south are much warmer than those in the north, but the finest climate is in the valley of the Rhine. Here winter is short and spring early, and the vine and chestnut grow luxuriantly. Indeed, the vegetation of Baden is particularly rich, and manifests itself especially in the magnificent forests which line many of its valleys and clothe its mountain sides.

89. The industry of Baden is diversified and valuable—agriculture and mining taking the

first rank. More than a third of the whole surface is arable land. Wheat, oats, barley, and rye are the principal cereals cultivated. The rearing of cattle forms an important occupation, and numerous goats and swine are fed in the Black Forest. Bees and silkworms are reared. In regard to both quantity and quality, few countries are richer in wines than Baden. Vineyards, indeed, occupy a comparatively large space, and the country is also famous for its orchards, or rather forests of fruits—apples, pears, chestnuts, and particularly the cherry and plum, from which the universally esteemed "Kirchwasser" and "Zwetschgewasser" are distilled.

90. Neither manufactures nor trade appear to flourish. The most important manufacture is that of wooden clocks, and musical boxes and toys. The working of the minerals already enumerated affords much more extensive occupation. Timber of the best quality for shipbuilding is transmitted by the Rhine to Holland, and by way of Basle to Switzerland and France, both of which take also large quantities of charcoal. The only other articles of trade deserving notice are wines and spirits, and perhaps salt, which latter is sent to Rhenish Prussia and Switzerland.

91. The government is a constitutional monarchy. The legislature is composed of two chambers: the upper chamber consists of the ducal princes, nobles and barons, the bishops, 14 deputies from the landed proprietors elected for eight years, 2 deputies from the universities elected by the professors for four years, and 8 individuals nominated at will by the grand duke from any class; and the lower chamber consists of 63 deputies elected for eight years. The executive belongs entirely to the grand duke, who appoints his own ministers, councilors, and judges. The supreme civil and criminal court has its seat at Mannheim.

92. There is no proper religious establishment, but every form of belief is protected, and where the adherents are of any numerical importance, directly recognized. Of the total population two thirds are Roman Catholics, and the remaining third, with the exception of about 24,000 Jews, are Protestants. The archbishop of Freiburg is head of the Catholic Church. Education is compulsory, and hence is very generally diffused. Every village has at least one primary, and every town a grammar school. Of a higher order than these are numerous seminaries called royal schools, Latin schools, pædagogiums, gymnasiums, and lyceums, and at the head of the whole are the universities of Heidelberg and Freiburg, both of great antiquity, and honorably distinguished among German schools. The former has a Protestant, and the latter a Roman Catholic faculty of theology.

93. Baden is divided into four kreise or circles, and these into bailliwicks and communes:

Circles.	Area, sq. m.	Popula. (1852).	*Capitals* and Chief Towns.
See or Lake	1,306	199,075	*Constanz*, 6,592; Villingen, 4,201; Donaueschingen, 3,233; Ueberlingen, 3,012.
Ober-Rhein	1,658	349,205	*Freiburg*, 13,519; Endigen, 3,792; Breisach, 3,402; Lorrach, 2,807.
Mittel-Rhein	1,686	462,085	Carlsruhe, 24,198; Pforzheim, 8,119; Lahr, 6,814; Bruchsal, 7,821; Rastadt, 6,967.
Unter-Rhein	1,316	346,578	*Mannheim*, 26,277; Heidelberg, 14,198; Meinheim, 6,132; Wertheim, 3,918.
Total	5,916	1,356,943	

94. Carlsruhe, the capital, is situate on a fine plain 4 miles east from the Rhine, in latitude 49° 0′ 50″ and 8° 24′ 44″. It is in the form of a wheel, of which the ducal palace is the center, from which 32 streets radiate. The castle or palace is a neat, pretty building, with a fine collection of paintings, mostly French; and the pleasure-grounds and park attached are very extensive and well kept, but gloomy. The streets of the city are broad, well paved, and clean. Its manufactures are valuable, and a large transit trade is carried on by the Rhine and the railroads connecting the city with Frankfurt, and with France, Switzerland, etc. Baden, from which the grand duchy takes its name, called also Baden-Baden, is celebrated for its mineral waters. Constanz is an ancient Roman town, but has much fallen in importance. It has some trade, and a port (Ludwigshafen) on the lake. Numerous villages, noted chiefly for their mineral baths and fine old castles, lie round the town. Freiburg is a thriving commercial town on the Deisam, and is the seat of an ancient university. Mannheim, at the confluence of the Neckar with the Rhine, is the largest city of Baden. It is a free port, and carries on a considerable trade. Heidelberg, 12 miles southeast of Mannheim, is celebrated for its university. Most of the principal places are connected by railroad.



BADEN-BADEN.

95. The hereditary possessions of Baden were little more than a fourth of its present territory. Formerly a margravate, it was erected into a grand duchy, as a member of the Rhenish Confederation in 1806, with extensive territorial additions. These acquisitions were guaranteed by the Congress of Vienna.

PRINCIPALITIES OF HESSE.

96. Hesse (Hessen), three independent sovereignties, are situate contiguous, and extend between latitudes 49° 24′ and 51° 38′ north, and longitudes 7° 53′ and 10° 12′ east, covering an area of 7,091 square miles.

97. Hesse-Cassel (Hessen-Kassel or Kur-Hessen) consists of a central territory and five detached portions, the largest of which are the county of Schaumberg to the north, and the lordship of Schmalkalden to the south. Area 3,740 square miles. The greater part belongs to the table-land of central Germany, and in the north is traversed by the Werra hills. The middle portion is occupied by the plateau of Fulda. The Rhön, Spessart, and other low mountain ranges, which enter Hesse from Bavaria, cover the southeast and south. Schmalkalden, between the Prussian and Saxon territories, is covered with the Thuringian forest mountains; and Schaumberg, between Hanover, Lippe, and Prussia, by ramifications of the Harz. The Weser bounds it on the north, and receives the Fulda, Werra, Eder, Schwalm, Diemel, Lahn, etc., and the Main bounds it on the south, into which flow the Kinzig and Nidda. There are many large ponds, especially in the north, though none that can be called lakes. The soil is stony, sandy, and nowhere particularly fertile; and nearly one third of the surface is covered with forests. Minerals, including copper, zinc, lead, iron, and coal, are abundant.

98. The great majority of the people are agricultural, and more than a sufficiency of grain is grown. Potatoes are universally cultivated. Tobacco, flax, hemp, hops, etc., are the subsidiary crops; but as this is the north limit of vine culture, little attention is given to that staple. Orchards are everywhere numerous. The pastures are good, but cattle are not found in great numbers. Sheep and hogs are more plentiful, and of excellent breeds. Mining is pursued more or less in all the provinces, but iron appears to be the only metal profitably worked. Coal, of which there is abundance, however, is coming into general use. Manufactures have not yet reached any high degree of importance: linen weaving and spinning are the most widely diffused, and form throughout the country auxiliary employments of the small farmers and their families. Schmalkalden is the only district in which there are any large manufacturing establishments, and is the seat of extensive iron works and manufactures of fire-arms, cutlery, hardware, etc. Iron and steel wares are also made in the valley of the Weser. The exports and imports are considerable, and the central position of the Electorate secures to it a large transit trade, for which the rivers and railroads afford extensive facilities.

99. Hesse-Cassel is a limited sovereignty. Executive power is vested solely in the elector. The different orders of the state are represented in one parliamentary chamber, and this assembles at least once in three years. For civil and criminal justice there is a high court of appeal at Cassel, superior courts at Cassel and Fulda, and provincial courts in the several chief towns. With each of these a forest court is connected, and subordinate to them are district and rural police courts.

100. The chief educational establishments are the university at Marburg, the military and polytechnic school at Cassel, and a theological school at Fulda. Numerous elementary and intermediate schools are established throughout the Electorate. In the large cities there are libraries, museums, galleries of paintings, etc.; and at Cassel an observatory. About four fifths of the inhabitants are Protestants.

101. Hesse-Cassel is divided into four provinces:

Provinces.	Area, sq. m.	Popula. (1854).	*Capitals* and Chief Towns.
Nieder-Hessen, with Schaumberg	1,710	367,575	Cassel, 32,516; *Eschwege*, 7,124; Allendorf, 5,827; Rothenburg, 4,986; Homberg, 4,911; Hofgeismar, 4,822.
Ober-Hessen	769	124,762	*Marburg*, 7,951; Frankenberg, 3,710; Treysa, 2,712.
Fulda, with Schmalkalden	722	138,685	*Fulda*, 9,579; Hersfeld, 6,827; Schmalkalden, 5,982.
Hanau	539	124,328	*Hanau*, 15,266; Gelnhausen, 4,791: Bockenheim, 3,777.
Total	3,740	755,350	

102. Cassel, the capital, consists of two towns, the old and the new, divided by the river Fulda, across which there is a fine stone bridge. Latitude 51° 18′ 58″, and longitude 9° 24′ 3″. It possesses many splendid public buildings, a magnificent park called the Augarten, and in the suburbs several gardens, etc. It is the chief manufacturing and commercial city of the state, and has a large domestic as well as transit trade, for which it has excellent river and railroad facilities. In the neighborhood are Wilhelmsthal, a fine palace, and Wilhelmshöhe, regarded as one of the finest and most magnificent residences in Europe. Marburg, on the Lahn, is the seat of a university, founded 1527, and an ancient church in which is the tomb of St. Elizabeth, and several monuments of the Hessé landgraves. It has also a school of surgery, a botanic garden, a gymnasium, etc., and considerable manufactures. Fulda, the see of the Catholic bishop, is situate on the river so called. It has considerable manufactures and commerce. Hersfeld, also on the Fulda, is a thriving town 32 miles from Cassel. Schmalkalden, a small town in the Thüringerwald, is noted in history for the League made there by the Protestants in 1531. Hanau is a busy commercial town on the Kinzig. Near it are the mineral springs of Wilhelmstadt.

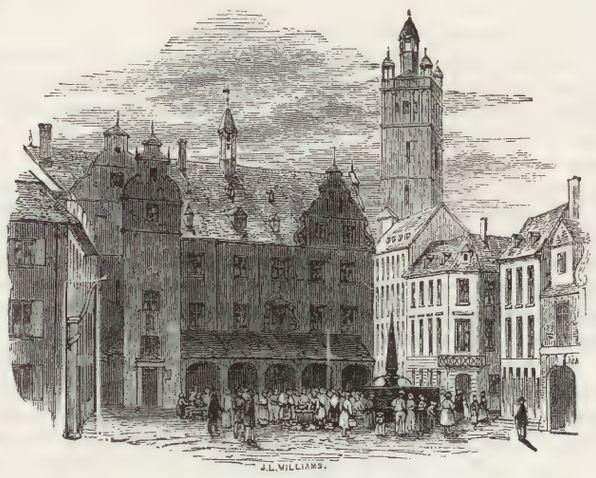
103. Hesse-Darmstadt, or Grand Ducal Hesse (Grossherzogthum-Hessen), consists of two not very unequal tracts of territory, separated from each other by Hesse-Cassel and Frankfurt, and of some smaller detached portions, chiefly inclosed within Waldeck. Ober-Hessen, the most northern of the two principal tracts, is bounded west by Westphalia and Nassau, and encircled on all other sides by Hesse-Cassel, and the other, which is divided into the provinces of Starkenburg and Rhein-Hessen by the Rhine, is separated from the former by Frankfurt, Nassau, and Hesse-Cassel. Area 3,245 square miles.

104. The surface is very much diversified. Rhenish Hesse and the west part of Starkenburg consist mostly of a level plain of great fertility, while the east of the latter province is occupied by the richly wooded Odenwald. Ober-Hessen is hilly or uneven throughout, being intersected by the Taunus, Westerwald, Vogelsgebirge, and other low hill ranges. Next to the Rhine, the chief rivers are its tributaries, the Main, Weschnitz, Selz, and Nahe in Starkenburg, and Rhein-Hessen, and the Wetterau, Nidda, Lahn, Eder, Fulda, etc., in Ober-Hessen. The climate is generally healthy, but varies much in different parts. The principal forest trees are beech, oak, hornbeam, pine, etc., and on the mountains, maple, elm, and larch. Minerals are abundant, and include copper, iron, coal, salt, and a variety of stones and clays useful for economic purposes.

105. Hesse-Darmstadt is essentially an agricultural country. The Rhenish plains are among the best cultivated, as well as the most fertile tracts of Germany. In Rhein-Hessen the poppy, rape, tobacco, and fruit are extensively cultivated. Flax, hemp, hops, and garden vegetables are the other chief objects of culture. Cattle-breeding is practiced most extensively in Ober-Hessen, where there is an active trade in livestock, including sheep and hogs,

and many cattle are fattened in the Odenwald. Large quantities of timber are sent down the Main and Neckar.

106. Mining is the occupation next in importance to agriculture. Salt mines are wrought in Wimpfen, a detached territory to the south; copper is obtained at Thalitten, in Ober-Hessen; and in the mountain districts and in the Odenwald extensive iron mines are wrought. Coal is abundant, but as yet has not been brought into general use, turf being the common fuel. Building-stone, slates, marble, gypsum, and potters' clay are the other chief mineral products, and there are traces of lead and mercury.



TOWN-HALL AND MARKET-PLACE, DARMSTADT.

107. Manufactures on any extended scale can not be said to exist in the Grand Duchy. Spinning and weaving linen and hemp are carried on as auxiliary occupations: among these are damasks and other fine fabrics; and coarse woolens are manufactured at many places. The export and import trade is brisk, and the Rhine and other rivers are the highways of a valuable internal and transit trade.

108. Hesse-Darmstadt is a limited sovereignty, and has two chambers, which meet at least once in three years. The upper chamber consists of hereditary, official, and life-appointed members, and the lower of deputies of the inferior nobility, freeholders, and burghers. The deputies are elected for six years. Justice is administered in provincial courts at Darmstadt, Giessen, and Mainz, and the supreme court at the capital.

109. Elementary schools are established throughout the state. The reigning family and about two thirds of the population belong to the Protestant denominations. In 1852 the Lutheran church numbered 408,658, the Calvinist 36,520, the Evangelical (united) 157,405, the Roman Catholic 217,798, other Christians 4,199, and Jews 28,734. The Protestant prelate of Darmstadt and the Catholic bishop of Mainz are the heads of the respective churches.

110. Hesse-Darmstadt is divided into three provinces:

Provinces.	Area, sq. m.	Popula. (1852).	*Capitals* and Chief Towns.
Starkenburg	1,165	319,050	DARMSTADT, 29,716; Offenbach, 11,106; Bronsheim, 6,012; Umstadt, 3,127.
Rhein-Hessen	531	225,647	*Mainz* (Mentz), 34,345; Worms, 10,108; Bingen, 4,897; Oppenheim, 5,677.
Ober-Hessen	1,549	309,617	*Giessen*, 8,105; Alsfeld, 3,923; Biedenkopf, 3,407; Schlitz, 3,397; Friedberg, 2,981.
Total	3,345	854,314	

111. Darmstadt, the capital, is situate upon the Darmbach, 15 miles south of Frankfurt, and on the Frankfurt and Mannheim Railroad. It consists of two towns: the old town, a somber place surrounded with walls, and the new town, well-built with wide and neat streets. The principal buildings are the Grand Ducal Palace, the Palace of the hereditary prince, the Hall of the States, Barracks, etc., and several literary and scientific establishments, a library of 200,000 volumes, seven churches, and other edifices. Its manufactures are not unimportant. Offenbach, on the Main, is a flourishing commercial and manufacturing town, and exports jewelry, linens, etc. Giessen, on the Lahn, is the seat of a university, with a library of 40,000 volumes. It has also a normal school, school of forest economy, and other institutions of learning; and it manufactures largely woolen and leather goods.



CATHEDRAL AND MARKET-PLACE, MAYENCE.

112. Mainz (Mayence or Mentz), formerly the capital of the territory of the elector-archbishop, primate, and archchancellor of the German Empire, is a large and strongly fortified city on the left bank of the Rhine, a little below the confluence of the Main. The immense fortifications with which it is inclosed, narrow and winding streets, and ancient houses give the town altogether a gloomy appearance. On the opposite side of the river is the small town of Cassel or Castel, comprised within the system of its fortifications, and connected with Mainz by a bridge of boats. Mainz is the principal fortress of the Confederation, and is garrisoned by 8,000 Austrian and Prussian troops. The principal edifices are the Cathedral, built in the tenth century, the old Electoral Palace (now custom-house), the Courts, Arsenal, etc. A literary club-house occupies the site of the house of Guttenberg, the inventor of printing, to whom a statue in bronze has been erected. Mainz has a college, diocesan seminary, schools of medicine and surgery, a public library of 100,000 volumes, among which are some of the earliest extant specimens of printing, museums of natural history, coins, antiquities, etc.; and though its fortifications greatly interfere with its river trade, it is still the principal trading city in the Grand Duchy, and, next to Cologne, with which it is connected by railroad, the principal in West Germany for the supply of Rhenish produce, having a considerable trade in corn, wine, timber, etc.

113. Worms, on the left bank of the Rhine, 27 miles south of Mainz, is one of the most ancient cities of Germany, having been built by the Romans: it was frequently the residence of the Carlovingian kings, and the place of meeting of the diets of the Empire. In the thirteenth century its population amounted to 60,000. Among the many diets held at Worms, the most celebrated is that of 1495, convoked by Maximilian I., and that of 1521, before which Luther appeared. It has a large trade in agricultural produce, and in the fine wines produced in its vicinity.

114. HESSE-HOMBURG, one of the smallest states of Germany, consists of two detached portions, Homburg and Meisenheim, about 45 miles apart—the former inclosed between Darmstadt and Nassau, and the latter surrounded by the territories of Prussia, Oldenburg, and Bavaria. Area 106 square miles. Both territories are mountainous—Homburg lying on the south declivity of the Taunus, and Meisenheim being partly covered with ranges of the Hunsdrück Mountains.

115. Hesse-Homburg comprises two provinces:

Provinces.	Area, sq. m.	Popula. (1855).	Capitals.	Popula.
Homburg	32	11,483	HOMBURG	4,600
Meisenheim	74	13,454	Meisenheim	2,600
Total	106	24,937		

116. Both territories are well cultivated. Meisenheim, in particular, has a mild climate, and in the southeast the vine is extensively reared. The agricultural products exceed the consumption; the forests abound with excellent timber, and the minerals include both iron and coal. The State has also some manufactures.

117. The government is administered by a regency appointed by the grand duke of Hesse-Darmstadt, to whom the late landgrave assigned the sovereignty. There are provincial courts of justice and a superior court at Homburg, with appeal to the high court of appeals at Darmstadt. There is no standing army. More than four fifths of the population are Protestant.

118. Homburg von der Hoehe, on the Eschbach, and nine miles northwest of Frankfurt, is the capital. It is best known for its well-frequented mineral springs, and has elegant bath establishments, and is one of the most noted gambling places of Europe. In the vicinity of Meisenheim, on the Glan, are extensive iron and coal mines.

DUCHY OF BRUNSWICK.

119. BRUNSWICK (Braunschweig) consists of three larger and six smaller territorial districts, detached from each other and surrounded by neighboring states. The principal district, containing the capital, is of a compact oval form, and lies between Hanover and Prussia; the second larger district is a long irregular belt, stretching across the south of Hanover; and to the south and east lies the third district, also very irregular in shape, traversed by the Harz Mountains, and surrounded by portions of Prussia, Hanover, and Anhalt. Of the six smaller districts, Thedinghausen, Bodenberg, Haringen, and Oelsburg are in Hanover, and Kalvörde and a patch of land near the village of Seinsfeld are in Prussia. The united area of all these districts is 1,427 square miles.

120. The surface is for the most part hilly, particularly the district traversed by the Harz—the greatest elevation, Wormberg, being 3,230 feet above the sea. In Brunswick proper, however, there is much level land, a few ridges only appearing toward the east. The principal rivers are the Oker, Leine, and Weser, to the basin of which last all these streams belong, and the Bodi, which falls into the Elbe. The valleys are in general fertile, and nearly one half of the whole surface is cultivable, while a third is covered with forest, and the remainder is moorland. There are several small lakes in the Harz, and mineral springs at Helmstädt and Seesen. The principal minerals found in the Duchy are gold, silver, antimony, lead, zinc, copper, iron, sulphur, and alum, also precious stones, marbles, various clays, salt, etc. The red deer, roebuck, and the wild boar are occasionally found in the forests, and in the lakes and rivers an abundance of fish.

121. Agriculture is the chief source of the wealth of the Duchy. Cattle, horses, and sheep are numerous, and of excellent breeds. Mining is extensively carried on in the Harz Mountains. Manufactures are not important, and are limited chiefly to ironware, linens and camlets, paper, lacquered ware, glass, etc. Dyeing and brewing are also carried on to a considerable extent.

122. Brunswick is a constitutional sovereignty, the executive power being exercised by the duke, and the legislative by the duke and a parliament of two chambers—an upper composed of six prelates and 78 holders of equestrian estates, and a lower composed of six prelates, 19 deputies from towns, and as many representatives of land-owners who do not possess equestrian rights. The legislature must meet at least once in three years. In each circle there is a board to manage municipal and local affairs. The supreme court of appeal at Wolfenbüttel is the highest legal tribunal. About seven eighths of the inhabitants are Protestants.

123. For administrative purposes, the Duchy is divided into six kreise or circles, as follows:

Circles.	Area, sq. m.	Popula. (1853).	Capitals.	Popula.	Circles.	Area, sq. m.	Popula. (1853).	Capitals.	Popula.
Braunschweig	209	69,725	Braunschweig	43,291	Holzminden	223	39,409	Holminden	3,409
Wolfenbüttel	295	52,628	Wolfenbüttel	9,207	Gandersheim	212	42,417	Gandersheim	2,011
Helmstädt	302	44,396	Helmstädt	5,392	Blankenburg	184	22,498	Blankenburg	3,672

—making a total of 1,427 square miles, and 271,208 inhabitants, or 790.0 to the square mile.

124. Brunswick, the capital, is situated on the Oker, 35 miles east-southeast of Hanover. Latitude 52° 16′ 11″, and longitude 10° 31′ 29″. It is divided into six districts and has 100 streets, many of them spacious and imposing; and the old fortifications have been leveled and converted into pleasant promenades. The principal edifices are the Schloss or Palace, the ancient Cathedral and 10 other churches, the Arsenal, Mint, the Legislative Chambers, the Opera House, Museum, etc. The museum possesses an excellent gallery of paintings. Among the educational institutions are a college, school of anatomy, a gymnasium, etc. The principal manufactures are linen and woolen goods, hardware, tobacco, chiccory, mineral colors, porcelain, papier-maché, leather, etc. Three railroads now meet in Brunswick, and promise to make the city the depôt of an extensive trade. Wolfenbüttel, on the Oker, and 9 miles south of Brunswick, is the seat of the supreme tribunal of appeal for the states of Brunswick, Lippe, and Waldeck, and possesses a rich library of 100,000 volumes, with manuscripts, etc. It has various manufactures, and considerable trade in corn and linen yarn. Helmstädt, 20 miles east-southeast of Brunswick, is a walled town, with manufactures of flannel, hats, tobacco-pipes, etc., and a trade in cattle, In its vicinity are coal-mines and mineral baths. Holzminden, on a spur of the Sollinger forest hills near the Weser, and 55 miles south-southwest of Brunswick, is a well-built town, with manufactures of flannel and hosiery; important iron and steel works, and several mills, one of them for cutting paving stones, which are largely exported; and a brisk trade in iron and linen. Gandersheim, on the Gande, 35 miles southwest of the capital, has manufactures of steel and ironware. Blankenburg, on the Harz Mountains, 38 miles south-southeast of Brunswick, is a small walled town; and on a summit close by the town is the ducal palace of Luisenburg, a heavy structure with 270 apartments and a large collection of paintings. The inhabitants are chiefly employed in cutting marble, which is dug from the fine quarries of Heidelberg in the neighborhood. Rubeland is noted for its forges, and for the grottoes of Baumann and Biels.

125. The house of Brunswick owes its origin to Aza, of the family of Este, who died 1055. Its dominions under Henry the Lion, who married Maude (daughter of Henry II. of England), and who is considered as the immediate founder of the Brunswick family, were the most extensive of any prince of the time; but having refused assistance to Frederic Barbarossa in a war against Pope Alexander III., he drew the emperor's resentment upon him, and in the diet of Wurzburg he was proscribed. His territories were now partitioned into several principalities, and on this he retired to England. Brunswick and Lunenburg, however, were afterward restored to him. Since then the house has divided into several branches: the present duke has sprang from the eldest, and the house of Brunswick-Zell from the second, and from this latter sprang the royal family of England.

SAXON DUCHIES.

126. The possessions of the princes of Saxony lie contiguous, and along the northern frontier of Bavaria, and between that and Prussian Saxony, extending between latitudes 50° 12′ and 51° 30′ north, and longitudes 9° 50′ and 12° 36′ east. These are Saxe-Weimar-Eisenach, Saxe-Coburg-Gotha, Saxe-Meiningen-Hildburghausen and Saxe-Altenburg. Area 3,656 square miles.

127. Saxe-Weimar-Eisenach is composed of three larger portions—Weimar, Neustädt, and Eisenach, and twelve smaller parcels, as Ilmenau, Bösleben, Zillbach, Seebach, Allstädt, Oldisleben, Thränitz, etc. Weimar is bounded north and west by Prussian Saxony, south by Schwartzburg-Rudolstadt, and southeast and east by Altenburg. Neustädt lies to the southeast, and though at no great distance is completely separated from it by Altenburg. Eisenach, situated considerably to the west, is bounded north by Prussian Saxony, west by Hesse-Cassel, south by Bavaria, and east by Gotha and Meiningen. The surface is in some parts mountainous, and in others finely undulating, the intervening ridges of the higher grounds forming the sides of four valleys. It almost wholly belongs to the basins of the Elbe and the Weser; the former draining Weimar by the Saale and its tributaries, and the latter draining Eisenach by the Fulda. Lakes are numerous, but of little size. The forests are very extensive; and among the minerals are iron, copper, silver, manganese, potters' and fullers' earths, etc.

128. The Grand Duchy is divided into three kreise or circles, as follows:

Circles.	Area, sq. m.	Popula. (1855).	*Capitals* and Chief Towns.
Weimar	693	135,178	Weimar, 12,271; Jena, 7,177; Apolda, 4,106; Ilmenau, 2,402.
Eisenach	467	80,551	*Eisenach*, 10,012; Ruhla, 3,199; Ostheim-von-der-Rhon, 2,812; Kreutzburg, 2,102.
Neustädt	242	48,026	*Neustädt*, 4,327; Weida, 3,927.
Total	1,402	263,755	

129. Weimar is the most fertile part and the granary of the Grand Duchy. Oats and potatoes are the principal crops in Eisenach. In the valley of the Saale hemp is grown; and in some sheltered spots, particularly near Jena, the vine is cultivated. The forests are a source of great wealth, producing timber, potash, and charcoal. The most valuable stock is the sheep; swine also are very numerous, and game and fish are alike abundant. Iron and manganese are the only metals now worked; and salt and the economic clays are procured plentifully. Manufactures have made the greatest progress in Eisenach, where woolen, cotton, and linen tissues, ribbons, and carpets, etc., are made. In Weimar and Neustädt manufactures are insignificant. In the former the most important articles appear to be books and maps. The principal exports are timber, dried fruit, wool, and gin; and trade generally is in a flourishing condition.

130. The Grand Duchy is a constitutional sovereignty. The states are divided into an ordinary diet and an extraordinary diet. The first is convened every three years. Justice is administered in numerous local courts; in provincial, at Weimar, Eisenach, and Weida (at Sondershausen and Arnstadt in common with Schwartzburg for the territories of Weimar lying within those principalities), and in the appeal court at Eisenach. The supreme court of Jena is the highest judicial tribunal. Out of the whole population only 10,600 are Roman Catholic, and 1,430 Jews, the remainder, 251,725, are Lutherans and other Protestant sects. The people are highly intelligent, and have every facility in the public schools for attaining a good education. Besides public schools, there are also high schools and colleges in all the large towns, and at Jena a celebrated university.

131. Weimar, the capital, is situate on the left bank of the Ilm, and on the railroad from Gotha to Halle, in latitude 51° 11′, and longitude 11° 16′. It is surrounded by hills, and no city of Germany of the same size has so many good buildings and excellent establishments. The grand ducal palace is in a simple but elegant style, and has an extensive park, and the library contains about 160,000 volumes, with manuscripts, medals, coins, etc. As a bookmart, Weimar ranks among the first in Germany, and its publications on geography and statistics have a wide celebrity. Weimar has manufactures of metal goods, cards, gloves, and woven fabrics, and a trade in corn and wool; but the chief resources of the inhabitants are derived from the presence of the court and visitors. About two miles east is Belvidere, a summer residence of the grand duke.

132. Eisenach, on the Horsel River, at the foot of the Wartberg, and on the railroad from Leipzig to Cassel, is the principal town in the Thüringerwald, and has many good public edifices, including a ducal residence, mint, town-hall, prison, and hospital. It has manufactures of cotton goods, soap, white-lead, dye-stuffs, etc. Near it is the castle of Wartberg, once the residence of the landgraves of Thuringia, and in which Luther passed ten months of durance (1521–22) under the friendly arrest of the Elector of Saxony.

133. Jena, on the Saale, here crossed by a stone bridge, is inclosed by walls, beyond which are extensive suburbs. It is regularly laid out and well built, and among its public edifices are the ducal palace, several hospitals, a lunatic asylum, and the university. The university, built 1558, has 60 professors, a library of 112,000 volumes, a botanic garden, and observatory. Its manufactures are of trifling importance. It is the seat of the high court of appeal for the Saxon duchies and the Reuss principalities.

134. Neustädt, on the Orla, an affluent of the Saale, has a ducal residence. Its manufactures consist principally of coarse cloths, linens, and leather; and it has a considerable book trade. Weida or Weyda, on the Auma and Weyda, has a flourishing trade, and is distinguished for its general industry and thrift. Kreutzburg, on the left bank of the Werra, has a fine castle, and is noted for its bell-foundery, gypsum and stone quarries, etc. Ilmenau, on the Ilm, and the chief town of an isolated territory between Sondershausen and Gotha, is engaged chiefly in mining and the metallic manufactures, and has also a brisk timber trade.

135. Saxe-Coburg-Gotha is composed of two main territories, separated by the Thüringerwald, viz., Coburg and Gotha, the former of which is traversed by the Itz and Rodach, and the latter by the Gera, Nessa, Werra, Tlen, and Unstrut; and of several detached districts inclosed by Bavaria, Prussia, Saxony, Meiningen, and Weimar. The south of Gotha and the north of Coburg are both mountainous; in the former are the Beerberg, Schneekopf, and Inselberg, respectively 2,852, 2,829, and 2,655 feet high. Both divisions are highly fertile; the hills are covered with wood, and in Gotha coal and other minerals are found.

136. The chief occupations, particularly in Coburg, are cattle rearing and agriculture. The products of the latter are grain, peas, beans, hops, hemp, flax, potatoes (a principal article of food), and some wines. Hogs are fattened in the forests, which also yield timber, pitch, tar, charcoal, and potash. The people of Gotha employ themselves in the manufacture of linen, cloth, leather, iron and copper wares (these metals being mined here), paper, glass, and toys. Breweries, distilleries, saw-mills, and bleacheries are also numerous. The principal staples of export are fat cattle, grain, butter, leather, wood, wool, linen, and other manufactured goods.

137. The Duchy is a constitutional sovereignty. The administration of the provinces is separate, and each province has its own elective assembly, which unite and form one chamber of 17 representatives, of whom six are deputies of the nobility, five of the three principal towns, and six of inferior towns and the country districts. Justice is administered in district and provincial courts, and appeal lies to the supreme tribunal at Jena.

138. Among the institutions of public instruction are gymnasia at Gotha and Coburg, and near Gotha an observatory, a lyceum at Ohrdruff, and the Salzmann College at Schnepfenthal; and there are upward of 35 town and 300 village schools in the Duchy. The ducal house and the greater part of the population profess the Lutheran faith.

139. The Duchy is divided into provinces, as follows:

Provinces.	Area, sq. m.	Popula. (1855).	*Capitals* and Chief Towns.
Gotha	549	106,411	*Gotha*, 14,228; Ohrdruff, 4,712; Wettershausen, 3,407; Ruhla (with Weimar), 3,199.
Coburg	223	44,467	Coburg, 12,122.
Total	772	150,878	

140. The Duchy contains altogether 11 cities and towns, 10 market-towns, and 253 hamlets and villages. Coburg, the capital, is finely situate on the left bank of the Itz, in latitude 50° 15′ 19″, and longitude 10° 58′ 8″. The streets are narrow and the city unattractive, but has extensive suburbs and pleasant public promenades. The principal buildings are the Ehrenburg palace, built in 1549, and containing a library of 30,000 volumes, a picture gallery, and valuable collections of engravings, coins, antiquities, minerals, etc.; the government-house, a town-hall, an arsenal (containing a fine collection of ancient armory), etc. On an eminence overhanging the city is an ancient castle of the dukes of Coburg, surrounded by strong walls, and now converted into a prison. In this castle Luther was long concealed, and here wrote some of his best works. Coburg has some insignificant



CITY OF GOTHA.

manufactures, and in its vicinity there are some iron works. This is the only city of importance in the southern province.

141. Gotha, capital of the Duchy of Gotha, and alternately with Coburg the residence of the duke, is pleasantly situate on the Leine, here crossed by several bridges, and on the railroad from Frankfurt to Cassel, consists of the town proper and four suburbs, the former occupying the side of a hill, and surrounded by a wall with four gates. The houses are generally well built, and the streets wide and well paved; and the principal buildings are the ducal castle of Freidenstein occupying the height on the sides of which the town is built, two other palaces occupied by the ducal family, the mint, arsenal, theater, prison, lunatic asylum, etc. The manufactures consist principally of woolen, linen, and cotton goods, hats, carpets, leather, porcelain, musical instruments, and articles in gold and silver, and there are numerous tile-works and mills. Gotha is also noted as a book-publishing center, and for its very valuable annual, the "Almanac de Gotha." At no great distance is the observatory of Seeberg, to which the barons Zach and Lindenau have given great celebrity.

142. Saxe-Meiningen-Hildburghausen is composed of a main territory and several minor detached portions, as Kamburg, Krannichfeld, and Lichtenhain. The main body consists of a long, narrow belt of a crescent shape, and is bounded north by Weimar, Schmalkalden, an isolated district of Prussia, and Schwartzburg, west by Weimar and Bavaria, south by Bavaria, and east by Bavaria and Schwartzburg. It is a hilly, though scarcely mountainous country, the loftiest summits being usually of moderate height. On the east the ridges belong to the Frankenwald, on the north to the Thüringerwald, and on the west to the Rhöngebirge. The greater part of the surface belongs to the basin of the Werra, and only small portions to those of the Elbe and the Rhine. The principal rivers are the Werra and the Saale, and there are several small lakes and mineral springs. The higher districts, though well wooded, are bleak and altogether unfit for agriculture; the best lands are those in the valleys of its principal streams. Pastures are extensive. The minerals include iron, copper, argentiferous lead, salt, sulphur, cobalt, and various stones, slates, and economic earths.

143. Partly from the limited extent of arable lands, and partly from the general inferiority of the soil, the corn raised falls considerably short of the consumption. The principal crops are oats, buckwheat, potatoes, turnips, and hemp. Hops, tobacco, and even a little wine are produced in the more sheltered localities. The rearing of cattle, sheep, and horses is a very general employment, and many of the last are of superior description. Iron and copper are worked to a small extent, and the minerals spoken of are also made partial sources of wealth. The inhabitants are very industrious, and when precluded by the nature of the soil from engaging in agriculture, manage to earn a comfortable subsistence by manufactures, chiefly of ironware, porcelain, glass, and various ingenious articles of wood and pasteboard. The chief exports, in addition to these articles, are wood, salt, wool, and cattle.

144. The Duchy is a hereditary constitutional sovereignty. The legislature consists of an elective chamber, the president of which is nominated by the duke. Justice is administered by local and provincial superior courts, from which final appeal is carried to the supreme court at Jena. The great majority of the inhabitants are Lutherans, but universal toleration is observed. Education and science are widely diffused, and the educational institutions throughout the country are in a flourishing condition. Primary schools are numerous, and there are superior schools or colleges in all the towns, and the state has a direction in the University of Jena.

145. The Duchy is divided into four kreise or circles: Meiningen, Hildburghausen, Sonneberg, and Saalfeld, which together have an area of 972 square miles, and in 1856 contained 165,530 inhabitants, or 170.3 to the square mile. The capitals of the circles are—Meiningen, 6,497; Hildburghausen, 4,237; Sonneberg, 3,891; Saalfeld, 4,422.

146. Meiningen, the capital, is situate on the right bank of the Werra, in latitude 50° 31′ and longitude 10° 18′. It is encircled by wooded hills, and surrounded by ramparts and ditches. In the palace are collections of paintings, engravings, natural curiosities, the archives of the state, and a library of 32,000 volumes. The house of assembly for the states, a gymnasium or college, and theater are the other principal buildings. It has some manufactures, and also a small trade. The public gardens are said to be among the finest in Germany. Hildburghausen, 17 miles southeast of Meiningen, and also on the Werra, is, on the whole, a poorly built and lifeless city. It was formerly the seat of the supreme authorities, and has a palace where the dukes of Hildburghausen used to reside. The other public buildings are the several courts and public offices, the town-house, a college and several schools, a deaf and dumb institution, a lunatic asylum, and other charities. Its manufactures are unimportant, and its trade inconsiderable. Sonneberg, in a narrow valley on the Röthen, is chiefly remarkable for the extent to which it carries on the manufacture of all kinds of toys, which, under the name of Sonneberg and Nürnburg wares, are known over the world. A quarry in the neighborhood produces excellent hones and a vast number of slate pencils. Saalfeld, in the midst of the Thuringian Forest, and on the left bank of the Saale, here crossed by a bridge, is an ancient walled town, and contains two castles, one of them in ruins, three churches, a college, and the mint; and has manufactures of chiccory, tobacco, dyes, and chemicals.

147. Saxe-Altenburg, consisting of two divisions, separated by Reuss-Gera and Weimar, lies westward of the kingdom of Saxony. Altenburg, the eastern division watered by the Pleisse, is one of the most fertile and best cultivated districts of Germany; while Saale-Eisenberg, the western district, watered by the Saale, particularly in the southeast, is covered with mountains and forests. In the east of Altenburg, however, the first slopes of the Erzgebirge begin to rise. These are composed chiefly of a reddish claystone and porphyry, and contain considerable seams of brown coal or lignite. In the western district iron is abundant.

148. The chief employment of the inhabitants of both divisions, exclusive of those engaged in agriculture, is spinning and weaving. In the towns the woolen manufacture has the pre-eminence. Among the products may be mentioned wooden utensils, potash, glue, liquors, earthenware, etc. Iron and lignite are mined, and roofing-slates and excellent building stones quarried. In the western district there is considerable traffic in corn and timber.

149. Saxe-Altenburg is a limited sovereignty. The legislature consists of 12 deputies, elected for five years, and a president, nominated by the sovereign. Justice is administered by various inferior and superior courts, from which appeal is made to the supreme tribunal at Jena. The people are mostly Lutherans.

150. The Duchy is divided into two kreise or circles, as follows:

Circles.	Area, sq. m.	Popul. (1850).	Capitals and Chief Towns.
Altenburg	244	85,704	Altenburg, 16,232; Ronneberg, 5,927; Schmolln, 3,812; Meuselnitz, 2,107.
Saale-Eisenberg	266	47,145	*Kahla*, 2,463; Eisenberg, 5,192; Roda, 2,631; Orlamunde, 1,298.
Total	510	132,849	

151. Altenburg, the capital, is situate on the left side of the Pleisse, and on the railroad from Berlin to Bavaria. Latitude 50° 56′, and longitude 12° 27′. The city is walled, and though irregularly built upon several hills, has some fine streets and many handsome edifices with five considerable suburbs. It is the seat of the higher courts and government offices, and contains seven churches, a deaf and dumb asylum, gymnasium, a considerable library, etc. The palace, which lies northeast of the city, on a hill of porphyry, is surrounded by extensive gardens. Manufactures are both various and valuable, consisting chiefly of linens, ribbons, gloves, brushes, carriages, optical instruments, etc.; and a considerable trade is carried on in cattle, corn, and wool. Ronneberg, north of Altenburg, is also a walled town. It is well-built, and has a ducal palace. Manufactures of cloth, porcelain, and leather are carried on, and also a considerable general trade. In the vicinity are mineral baths. Kahla, on the left bank of the Saale, here crossed by a bridge, is a walled town with three gates, and has extensive suburbs. Woolen and linen cloths, leather, dye-stuffs, tiles, etc., are its principal manufactures, and it has a considerable trade in wool and cattle. On the opposite side of the river is the old castle of Leuchtenburg, now a prison. Eisenberg, on a height near the Saale, is partly surrounded by wells, and has manufactures of woolen, porcelain, and stoneware, and a trade in corn and wood.

PRINCIPALITIES OF MECKLENBURG.

152. Mecklenburg, a country of north Germany, is situate between latitudes 52° 11′ and 54° 26′ north, and longitudes 10° 29′ and 13° 28′ east; and is bounded north by the Baltic; east, southeast, and south by the Prussian territories; and west by Hanover, Lauenburg, and Lübeck. Area 6,238 square miles.

153. Mecklenburg belongs to the great plain of northern Europe. Its surface, however, is not a dead level, but undulating and traversed by a series of low hills, forming the watershed between the basins of the Elbe and of the Baltic—the former receiving the drainage of the south and west chiefly by the Elbe and its tributaries, and the latter that of the north by the Trave, Stepnitz, Warnow, Rechnitz, and Peene. The sea-coast is low and much indented by several bays, the largest of which is that of Wismar. The most extensive lakes are those of—Muritz, which has an area of 52 square miles, and Schwerin, which lies in a hollow surrounded by a chain of gentle heights. Smaller lakes are very numerous, and, indeed, form one of the characteristics of the country.

154. Notwithstanding its high latitude, Mecklenburg has a milder climate than most other parts of Germany, and the atmosphere is remarkably humid. The soil is generally fertile, and, except some sandy heaths along the Baltic, and the sandy tracts on either border of the hills, the face of the country is cheerful and pleasant. The forests, though much diminished in their area, are still extensive, and afford considerable quantities of timber of the finest qualities.

155. The cultivation of wheat is the staple occupation, and Mecklenburg is now one of the principal countries of Germany from which that grain is exported. Next to corn in importance is the cultivation of peas, beans, potatoes, and turnips. Hemp and flax are subsidiary crops. Horses and horned cattle, both of which are numerous and excellent, are largely exported, and sheep have greatly increased within the last few years. Herds of swine and flocks of geese are met with throughout the country—the former wander nearly wild in the forests, and geese literally cover the banks of the lakes and rivers. The latter supply a considerable part of the quills of commerce, and their breasts, cured and smoked like bacon, are esteemed an epicurean delicacy.

156. Of mineral products, lime and salt are obtained in abundance, but mining, as an industry, is of little consequence. Manufactures are almost as unimportant—the principal are those of linen and woolen fabrics; and in the distillation of corn spirits, Mecklenburg is famous even in Germany. A few cotton, paper, glass, tobacco, soap, and wax-light factories, with breweries and tanneries, complete the list of its manufacturing establishments. The trade of the country consists principally in the export of its agricultural productions, which is facilitated by the proximity of the Elbe and the Baltic, especially the former, the principal part of the foreign commerce of the country being carried on through Hamburg. The import trade is also considerable.

157. This country, though constituting only one geographical and industrial region, is divided into two states—Mecklenburg-Schwerin and Mecklenburg-Strelitz. The separation took place in 1701, and both were recognized as grand duchies by the Congress of Vienna.

158. Mecklenburg-Schwerin occupies the main portion of the territory, and, indeed, the whole, with the exception of the small principality of Ratzburg on the west, and the lordship of Stargard on the southeast, which belong to, and constitute the Grand Duchy of Mecklenburg-Strelitz. Area 5,187 square miles.

159. Mecklenburg-Schwerin is divided into six districts—the circle of Mecklenburg or Duchy of Schwerin; the circle of Wenden or Duchy of Gustrow, the town and district of Rostock, the demesnes of convents, the Principality of Schwerin, and the Lordship of Wismar; and, according to the census of 1855, the population was as follows:

Locations.	Popula.
On the ducal demesnes, including the burghs of Ludwigslust, Doberan, Dargun, Lubtheen, and Zarentin	206,072
On the lands of the nobility, in which are comprised the burghs of Dassow and Klutz	137,586
On the lands of the convents of Dobbertin, Malchow, and Ribnitz	8,973
In the 40 towns	174,462
On lands belonging to towns	13,997
Total	541,091

—or in the proportion of 104.3 inhabitants to each square mile.

160. Mecklenburg-Schwerin, which is a limited sovereignty, is intimately connected in its government with that of Mecklenburg-Strelitz. Each grand duchy has its separate states, which also meet separately; but the states of both assemble once a year, alternately at Sternberg and Malchin, and the joint assembly, in conjunction with the grand duke of Mecklenburg-Schwerin, has the right to make laws for and impose taxes upon the whole of Mecklenburg. When the states are not assembled, a committee sits at Rostock. The executive power is intrusted to a "directorium," consisting of the grand ducal councilors, three heads of noble families, and a deputy from the town of Rostock, which is in itself a kind of little republic, or *imperium in imperio*. Justice is administered in primary courts in the towns and villages, and in patrimonial courts on the estates of the nobility, with secondary courts at Schwerin, Gustrow, and Rostock, and a high court of appeals at Rostock, which is the supreme court of appeals for both grand duchies.

161. Education is widely diffused; there are about 1,200 elementary schools, 49 superior public schools, 7 gymnasia, and a university at Rostock, with several ecclesiastical and other special seminaries. In the principal cities many of the libraries are extensive; and in every town there are industrial schools. In reference to religion, 537,002 of the inhabitants are Lutheran, 176 Calvinists, 807 Catholics, and 3,106 Jews.

162. Schwerin, the political capital, is situate near the lake of the same name, and on the Hamburg and Rostock railroad. It is a fine, well-built, and busy town of 17,336 inhabitants, and has both considerable manufactures and trade. The grand duke's castle is a large building, upon an island in the lake, and is connected by bridges with the town. Ludwigslust, 20 miles south, and on the Hamburg and Berlin railroad, is the usual residence of the sovereign, and is a neat town of 5,256 inhabitants. The palace is particularly remarkable for the beauty and extent of its gardens, and contains a fine gallery of paintings. Rostock, on the Warnow, six miles from the sea, is the largest and most populous town of the State. It contains 20,266 inhabitants, who enjoy great privileges, and are governed by laws peculiar to themselves. Manufactures of various sorts are carried on in the town, and its commerce is very considerable—the principal exports being corn, wool, flax, butter, and salt provisions. The fisheries are also important. Its university, once one of the most famous in Germany, has a library of 90,000 volumes. Rostock was formerly a member of the Hanseatic League, which it abandoned in 1492, and from that period, and especially of late years, its trade has declined. Its port is at Warnemunde, at the mouth of the river. Wismar, at the southern part of a bay of the Baltic, is the second city in point of commerce, and contains about 12,000 inhabitants. It has a commodious harbor and large ship-building docks. Parchim has 6,489 inhabitants. Gustrow is a flourishing town, and the chief wool market—population 9,004.

163. Mecklenburg-Strelitz consists of two larger and several smaller districts, the former separated by the interposition of Mecklenburg-Schwerin, and the latter existing in separate patches. The two larger districts are—the circle or lordship of Stargard, situated to the southeast of Mecklenburg-Schwerin, and inclosed on every other side by Prussia, and—the principality of Ratzburg, on the opposite extremity of Mecklenburg-Schwerin, and bounded on the north by the Baltic, and on the west by the territory of Lübeck and the duchy of Lauenburg. Area 1,051 square miles.

164. The state is divided into two districts, as follows:

Districts.	Area, sq. m.	Pop. (1851).	*Capitals* and Chief Towns.
Strelitz	907	83,276	Neu-Strelitz, 6,484; Alt-Strelitz, 3,037; Neu-Brandenburg, 6,422; Friedland, 5,056.
Ratzburg	144	16,352	*Ratzburg*, 3,088; Schönberg, 3,026; Dasson, 1,212.
Total	1,051	99,628	

—of the total population, 30,794 lived in towns, 33,947 on the grand ducal demesnes, and 18,535 on lands belonging to the nobles, the municipalities, etc.

165. The government is a limited monarchy, as in Mecklenburg-Schwerin. Justice is administered in eight courts of primary jurisdiction, the superior courts of Rucksicht and Ratzburg, and the court of chancery of Neu-Strelitz, from which appeal lies to the supreme court of Rostock. The great majority of the people belong to the Lutheran church. Education is generally diffused; there are public schools in all the towns; high schools in Neu-Brandenburg, Friedland, and Ratzburg; a college at Neu-Strelitz, and a school of art at Mirow.

166. Neu-Strelitz, between the lakes Zierk and Glombeck, is the capital. It is surrounded by walls, and is regularly built in the form of an octagon, the streets running from a common center. It contains several superior courts, and has a large and handsome palace, with a library of 50,000 volumes, and a fine collection of Sclavonic antiquities, a college, and several excellent schools. Alt-Strelitz, three miles to the southward, is also a walled town, and is entered by three gates. It is chiefly noted as a horse-market. Neu-Brandenburg, at the north end of Lake Tollen, is a handsome and industrious town, and contains the summer palace of the grand duke. Its walls are pierced with four gates. Next to Gustrow, it is the largest wool market in Mecklenburg.

167. Ratzburg, in the western division of the Grand Duchy, is properly a town of Lauenburg; but the northern quarter belongs to the principality of Ratzburg.

DUCHY OF NASSAU.

168. Nassau is situate between latitudes 49° 56′ and 50° 52′ north, and longitudes 7° 29′ and 8° 32′ east; and is bounded north and west by Rhenish Prussia, south by Hesse-Darmstadt, southeast by Frankfurt and Hesse-Cassel, and east by Prussia. Reichelsheim lies within Hesse-Cassel; otherwise the state is compact. Area, 1,838 square miles.

169. The surface is divided nearly equally by the Lahn, which flows from east to west. Both portions are more or less hilly, and sometimes mountainous—that on the north being traversed by the Westerwald, and that on the south by the Taunus or Hohe; the one a rugged woodland or pasture, and the other only hilly, and profitably occupied for cornfields, meadows, and vineyards. The average elevation of the Duchy is about 1,400 feet, but in its highest point—Feldberg—2,720 feet. The whole belongs to the basin of the Rhine, which forms a considerable portion of its south and west boundary. The other principal streams are the Main and the Lahn, with numerous affluents. The lakes are comparatively small.

170. The climate varies; in the south it is generally mild, and throughout salubrious. The strata on the west and south slopes of the Taunus consist mostly of slate, while all the rest of the Duchy is covered with trap. Minerals abound, and still more so mineral springs. Among the metals are iron and manganese, lead and silver, and there are extensive slate quarries, beds of potters' clay, and some lignite. The soil, when arable, is generally fertile, but the forests and pastures occupy a large extent of surface—the former supplying excellent timber, and the latter furnishing a fine range for cattle.

171. Nassau is a well-cultivated country, and in the districts inaccessible to culture the products are not less valuable. In such regions the forest and the mine amply compensate for this disability. The ordinary cereals are everywhere cultivated, also hemp, flax, tobacco, and fruits. The vine is extensively cultivated along the banks of the Rhine. The finest wines are those of Johannisberg, Rüdesheim, Asmannshausen, Geisenheim, Hochheim, Markobrünn, and Steinberg. Manufactures have not made much progress; and trade, though of considerable importance, and very greatly facilitated by navigable streams, is chiefly in the hands of foreigners. The principal exports are corn, wine, fruit, mineral waters, earthenware, and ironware.

172. The government of Nassau is a constitutional sovereignty, hereditary in the male line. The landstande or parliament consists of two chambers, and is convoked annually. Justice is administered in bailiwick and provincial courts, in courts of appeal at Wiesbaden and Dillenburg, and in the supreme court at Wiesbaden. Nassau is among the most liberal governments in western Germany.

173. Elementary schools are established in all the principal towns and villages, royal grammar schools in the capitals of the bailiwicks, and a gymnasium at Weilburg; besides female schools, special academies, deaf and dumb, and other charitable institutions. By agreement with Hanover, the University of Gottingen is constituted the high school of the Duchy, except in Roman Catholic theology, for which students resort to Marburg, in Hesse-Cassel. In respect of religion, 224,755 are Calvinists, 195,998 Roman Catholics, and 6,871 Jews—the small remainder belonging to other Christian communities.

174. The Duchy is divided into 28 amts or bailiwicks;

Amts.	Pop. (1855).	Amts.	Pop. (1855).	Amts.	Pop. (1855).	Amts.	Pop. (1855).
Braubach	12,495	Hoechst	18,669	Nastaettan	12,048	Walmerod	15,045
Dietz	17,153	Idstein	18,890	Reichelsheim	1,585	Wehen	11,005
Dillenburg	17,010	Koenigstein	17,283	Rennerod	14,573	Weilburg	19,483
Eltville	11,986	L. Schwalbach	11,114	Rudesheim	13,063	Wiesbaden	29,366
Hachenburg	12,240	Limburg	16,514	Runkel	15,211		
Hadamar	19,921	Marienberg	9,293	St. Goarshausen	11,955	Military	6,398
Herborn	15,459	Montabaur	18,245	Selters	16,470		
Hockheim	14,316	Nassau	13,286	Usingen	21,533	Grand Total	431,549

—of the total population, which is distributed into 103,919 families, 217,834 are males, and 213,715 females. The amts are usually named after their principal towns.

175. Wiesbaden, the capital, is situated on the Salzbach, an affluent of the Rhine, and at the foot of the Taunus. Its principal edifices are the ducal palace, cathedral, barracks, and theater, and a public library of 50,000 volumes, a museum, and gallery of paintings. It is one of the principal watering-places of Germany, and from June to September its population is more than doubled. Railroads connect it with Frankfurt, etc. All the other towns are small, but many of them are noted for their industry, or as famous summer retreats. Nassau is a small town on the Lahn, below Dietz. The ruined castle on the opposite side of the river gives title to the reigning family.

176. In 1806 the states of Nassau were divided into two branches—Usingen and Weilburg, both of which formed members of the Confederation of the Rhine. The first became extinct in 1816, and was incorporated with the latter. The founder of the reigning family was Otho, brother of the Emperor Conrad I., who flourished in the tenth century.

GRAND DUCHY OF OLDENBURG.

177. Oldenburg is composed of a main territory and three detached districts, namely, two in Holstein, forming the principality of Lübeck, and one in the southern part of Rhenish Prussia, forming the principality of Birkenfeld. The main territory is situate between latitudes 52° 26′ and 53° 44′ north, and longitudes 7° 28′ and 8° 47′ east; and is bounded north by the German Ocean, east by Hanover and Bremen, and south and west by Hanover. The area of the whole is estimated at 2,424 square miles.

178. Oldenburg proper belongs to the northern plain of Europe, and, with the exception of some low hills in its southern extremity, is throughout a flat country. The principal rivers are the Weser, which runs along its west border, and the Hunte—its affluent, the Jahde, Haase, Soeste, Vehne, and Leda. There are several lakes, but none of great extent. The climate is cold and moist, and frequent fogs even rob the summer of its proper warmth. The surface, in respect of soil, is divided into marshy and sandy land. The former has in many instances been recovered from the sea, and still is only protected from it by means of dykes, similar to those erected in Holland and Holstein, and consists generally of a heavy alluvium of great fertility. The sandy land is very light, and not unfrequently is left in a state of nature, forming extensive tracts of barren heath. A considerable part of these sandy districts was once covered with wood, and though much of it has disappeared, there are still several extensive forests. The sea, which in Oldenburg penetrates far inland, affords excellent fishing grounds.

179. Agriculture is the chief employment of the people. Wheat, beans, and hay are the principal crops, and rape, hemp, and flax subsidiary. The rearing of horses and cattle is also profitably carried on, and for this branch of rural economy the rich alluvium furnish abundant resources. Manufactures and trade have made comparatively little progress, but in the chief cities considerable establishments are found. Oldenburg has also a considerable foreign trade.

180. The government is a limited sovereignty. The grand duke rules by a responsible ministry. The legislature meets biennially. Justice is administered by provincial courts, and by the supreme and appeal courts at the capital. The great majority of the people are Lutherans; but there also 72,819 Roman Catholics, 860 Christians of other sects, and 1,477 Jews. The Roman Catholics are found mostly in the circles of Vechta and Cloppenburg, and

in Birkenfeld. Church affairs are under the immediate superintendence of a superior council. Education is universal and compulsory.

181. The Grand Duchy is divided into three governments: that of the duchy of Oldenburg with seven circles, and those of the two principalities of Lübeck and Birkenfeld:

Circles, etc.	Area, sq. m.	Pop. (1852).	Chief Towns.	Popula.
Duchy of Oldenburg:				
Oldenburg	300	40,392	OLDENBURG	8,237
Neuenburg	325	35,438	Neuenburg	512
Ovelgönne	184	29,881	Ovelgönne	1,183
Delmenhorst	307	34,725	Delmenhorst	2,017
Vechta	287	33,441	Vechta	2,178
Cloppenburg	551	32,654	Cloppenburg	1,026
Jever	188	20,838	Jever	3,528
Military	—	1,115		
	2,092	227,934		
Prin. of Lübeck	137	22,146	Eutin	2,967
" Birkenfeld	195	32,034	Birkenfeld	2,429
Total	2,424	282,114		

182. Oldenburg, the capital, is situate on the Hunte, 24 miles west of Bremen, and in latitude 53° 8′ 24″, and in longitude 8° 13′ 19″. It is a fortified town. The ducal palace, with a fine park, the government offices, and barracks are the principal buildings, and it contains a college and gymnasium, normal and military schools, the ducal library with 30,000 volumes, picture-gallery, etc. Its manufactures are insignificant; but it has some trade in timber, wool, and cattle. Elsfleth, at the confluence of the Hunte with the Weser, is chiefly engaged in ship-building. Braake, on the Weser, is at the head of navigation for large ships. Wildeshausen has a deaf and dumb asylum. Vechta contains the state prison and a Catholic college. Jever has a high court, and is a considerable place. Hooksiel, on the Jahde roads, is a small port with some commerce and ship-building. Delmenhorst, five miles west of Bremen, is noted as a cattle market. Varel, near the mouth of the Jahde, is a place of considerable trade, and has a tide harbor.

183. Eutin, the capital of Lübeck, is situate on the lake of the same name, and was formerly the residence of the prince-bishops of Lübeck. Birkenfeld, near the Nahe, west of the Palatinate, has a normal school and several manufactures; and Oberstein, five miles northeast, and on the same river, manufactures and exports large quantities of jewelry, etc.

184. Oldenburg was raised to the dignity of an independent state in 1773, and in 1813 Birkenfeld was added to its territory. The royal family is intimately connected with the families of Denmark and Russia. A small territory on the Jahde has recently been ceded to Prussia.

185. KNIPHAUSEN, forming a kind of intermediate sovereignty, guaranteed by the Confederation in 1826, belongs to the Dutch family of Von Bentinck, and is situate in the east part of the circle of Jever, by which it is wholly inclosed. Its surface is marshy, and well adapted for corn and the rearing of cattle. Area 17 square miles, and population 3,035. Kniphausen, a small village of 100 inhabitants, with a castle, is the chief place. For government purposes, and in its relations to Germany, it is essentially a part of Oldenburg, the grand duke having the title of Prince of Jever and Kniphausen.

DUCHIES OF ANHALT.

186. ANHALT, forming three duchies, lies partly in the plains of the middle Elbe, and partly in the valleys and uplands of the Harz Mountains, and has an aggregate area of 918 square miles.

187. ANHALT-DESSAU occupies the east section of the Anhalt territories. Area 321 square miles, with 70,128 inhabitants. The country is traversed by the Elbe and the Mulde, and is so well cultivated as to give it the appearance of a garden. Corn and wine are produced abundantly, and many valuable manufactures are carried on. The railroad from Köthen to Berlin passes through the state, and gives it great facilities of transit. The government is a constitutional sovereignty. Dessau, the capital, is situated on the Mulde, three miles above its junction with the Elbe, and is a considerable manufacturing town. Population 12,000.

188. ANHALT-BERNBURG occupies the western portion of the Anhalt territories. Area 319 square miles, with a population of 53,475 souls. It is a well-wooded, somewhat mountainous, and well-cultivated tract, and contains many useful minerals, among which coal, copper, lead, silver, and iron are the most important. Considerable progress has been made in manufactures, and since the completion of its railroad connection with Berlin, Leipzig, Brunswick, etc., its trade has been greatly increased. The chief occupation of the people, however, is agriculture. The state is a constitutional sovereignty. Bernburg, on the Saale, with 7,000 inhabitants, is the seat of government.

189. ANHALT-KÖTHEN, which occupies the middle space of the Anhalt country, has an area of 278 square miles, with 44,722 inhabitants. All sorts of grain are grown, also flax, tobacco, and hops. The manufactures include woolen and linen cloths, and its trade, both domestic and transit, is considerable. As a government, it is now consolidated with that of Dessau. Köthen, the capital, is built on the Ziethe, and on the railroads from Berlin, Leipzig, etc. Population 6,500.

PRINCIPALITIES OF SCHWARTZBURG.

190. THESE principalities occupy distinct territories, and are intermingled with the Saxon states and Prussia. They are situate between latitudes 50° 28′ and 51° 31′ north, and longitudes 10° 15′ and 11° 42′ east. Area 699 square miles.

191. SCHWARTZBURG-SONDERSHAUSEN is inclosed by Prussian Saxony, except on the west, where it joins a detached district of Saxe-Gotha. Area 328 square miles. It is more fertile than Rudolstadt, and the forests furnish excellent timber. Flax is extensively cultivated; and great numbers of cattle, sheep, and swine are raised. The minerals include iron, alum-schist, and copperas—from the first of which several furnaces and forges are supplied, and from the last two, alum and vitriol are manufactured. After these the only manufacture of importance is porcelain. The principal exports are corn, wool, timber, alum, vitriol, resin, fat-cattle, etc.

192. The state is divided into two lordships:

Lordships.	Area, sq. m.	Pop. (1855).	Chief Towns.	Popula.	
Sondershausen	189	35,127	SONDERSHAUSEN.	3,821	The other places are Klingen, Schernberg, Ebeleben, Keula, and Gehren, capitals of circles.
Arnstadt	189	26,325	Arnstadt	5,392	
Total	328	51,452			

193. The powers of the sovereign are extensive, but are exercised with the concurrence of a species of legislature, and through a responsible ministry. The circles are administered by presidents, and have each courts of primary jurisdiction. The people are mostly Lutherans, and are well educated.

194. Sondershausen, the capital, at the confluence of the Beber and the Wipper, is a walled town with four gates, and contains a palace, with gardens, and a rich cabinet of natural history, etc. Arnstadt, on the Gera, is a busy town, with manufactures of woolen, linen, and cotton stuffs, paper, etc., and is ar extensive corn market. It has a princely castle, and a church noted for its architecture.

195. SCHWARTZBURG-RUDOLSTADT in its main territory is inclosed by the Saxon duchies, and has several detached districts. Area 371 square miles. It lies on the north side of the Thuringian Forest, and is rugged in surface, with a soil by no means fertile. Perhaps the most important crop is flax, the culture of which is very general. A great part of the land is devoted to pasture, and cattle are reared in large numbers. The manufactures consist of woolen stuffs, ironware, glass, and porcelain. Lead, iron, and salt are produced abundantly, and these, with the manufactures and timber, constitute the chief articles of export.

196. The state is divided into two seigneuries or lordships, and these into bailiwicks:

Lordships.	Area, sq. m.	Popula. (1855).	Chief Towns.	Popula.	
Rudolstadt	261	54,012	RUDOLSTADT	5,913	The chief towns of the bailiwicks are Blankenburg, Paulinzelle, Stadt-Ilm, Konigsee, Oberweissbach, Lautenberg, Strausburg, and Stadt-Schlotheim.
Frankenhausen	70	14,962	Frankenhausen	4,961	
Total	331	68,974			

197. Rudolstadt, the capital, on the Saale, is a walled and well-built town, and contains the prince's palace, and a library of 40,000 volumes, with an arsenal, etc. It has several manufactures of wool, iron, etc., and a trade in timber, fruit, and garden produce. Frankenhausen is a thriving town, and though burned down in 1833, has fully regained its former position.

PRINCIPALITIES OF HOHENZOLLERN.

198. HOHENZOLLERN, a territory in the southwest of Germany, consists of a long, comparatively narrow, and very irregular territory, and is constituted of two contiguous but independent principalities between Baden and Wurtemburg. Area 443 square miles, and 64,839 inhabitants. The sovereignty of these principalities has been recently ceded to Prussia, and they are now governed as a Prussian province.

199. HOHENZOLLERN-HECHINGEN, the most northern of the two principalities, is almost wholly situate between the Bernberg and the Rauche Alps. Area 107 square miles. The surface is very rugged, and even mountainous. Between the hills a number of small valleys intervene, and are drained by affluents of the Neckar; but the climate is generally severe, and the soil indifferent. It is, however, well cultivated, and where the plow can not be used, there is much excellent pasture land. The minerals are of little value, and are chiefly confined to building-stone, limestone, and potters' clay. Nor are manufactures much advanced, but some woolens are made, and a good deal of worsted and cotton spun. The population in 1854 numbered 21,822 souls. Hechingen is a walled town on the Starzel, with 3,500 inhabitants, and about two miles from and connected with it by an avenue of poplars is the old castle of Hohenzollern, on a height of 2,620 feet above the sea, the cradle of the royal family of Prussia.

200. HOHENZOLLERN-SIGMARINGEN, the southern and the larger principality, is situate partly on the Rauche Alps and partly in the valley of the Danube, which crosses it from west to east, and within it receives the Leuchart and other small affluents. Area 336 square miles. The surface is in general very mountainous, and is intersected by only a few narrow valleys; and elsewhere than on the Danube the climate is severe and the soil unprofitable. The minerals include bog-iron ore, bituminous coal, gypsum, limestone, rock-salt, and fullers' earth. A considerable part of the higher ground is covered with wood, chiefly pine. Manufactures are on a very limited scale, and consist only in a few iron works, breweries, and several oil, saw, and other mills. Population 43,017. The chief town is Sigmaringen, on the Danube, which contains 1,804 inhabitants.

PRINCIPALITY OF LICHTENSTEIN.

201. LICHTENSTEIN, the smallest state of Germany, is situate between latitudes 47° 05′ and 47° 18′ north, and longitudes 9° 26′ and 9° 38′ east; and is bounded northeast and east by Vorarlberg and the Tyrol, south by the canton Grisons, and west by the Rhine, which separates it from the canton St. Gall. Area 61 square miles. The surface consists of low ramifications of the Alps, and of two valleys, one on the east and the other on the west side of the ridge. The first is that of the Samina, so called from a small tributary of the Ill, and the latter is part of the eastern valley of the Rhine. The climate is tolerably mild, and the soil almost everywhere fertile, and the pastures are excellent. The Principality, for admin-

istrative purposes, is divided into the two lordships of Schelemburg and Lichtenstein, and contains 7,150 inhabitants. Lichtenstein, formerly Vadutz, is the capital. The government is a hereditary sovereignty, and is vested in the prince, and in an assembly of deputies of the clergy, and rural proprietors. Justice is administered by a primary court at Lichtenstein, from which appeal lies to the court of chancery at Vienna, in which the prince has a seat. In religion the state is Catholic. The prince is a member of the family of Este, and one of the richest proprietors of Europe.

PRINCIPALITY OF WALDECK.

202. Waldeck is situate west of Hesse-Cassel, and is otherwise almost surrounded by Prussian Westphalia. Pyrmont, a detached territory, lies about 30 miles northward, and is surrounded by the territories of Hanover, Lippe-Detmold, and Brunswick. The surface is generally hilly. Both portions of the Principality are situated in the basin of the Weser, and are watered by its tributaries, the Eder, Diemel, and Emmer. Nearly one third of the surface is covered with forests; and the mineral products comprise iron, salt, slates, and marbles. The spas of Pyrmont are among the most noted in Germany.

203. Agriculture employs the majority of the population. Corn is raised sufficient for consumption, and also fruits and flax. Cattle-rearing and the production of timber are also important. The manufactures are chiefly those of woolen and linen stuffs, paper, iron, leather, and cotton hosiery; but the principal staples of commerce are corn, cattle, fine wool, honey, iron, mineral waters, etc. From the last-named the prince derives a large moiety of his revenue.

204. The government is a limited sovereignty exercised through a ministry, and a diet of representatives of the nobility, the towns, and the rural districts. The highest judicial tribunal is the supreme court at Arolsen, and there are subordinate courts in the several circles. The people, with the exception of about 1,000 Roman Catholics and Jews, all profess the Lutheran doctrines. Education, especially in Waldeck, is almost universal.

205. Waldeck consists of two principalities: Waldeck proper and Pyrmont—the former containing 428 square miles of territory and 51,638 inhabitants, and the latter 32 square miles and 6,494 inhabitants, or a total of 460 square miles and 58,132 inhabitants. Arolsen, on the Aar, is the capital. Latitude 51° 23′ north, and longitude 8° 55′ east—12 miles north of Waldeck. It is a well-built town, and has a handsome palace containing a gallery of paintings, a cabinet of coins and medals, a museum of antiquities, particularly rich in those of Pompeii and Herculaneum, and a library of 30,000 volumes. The country around is well wooded. Waldeck, on the Eder, is a small town of 1,000 inhabitants, and gives name to the state. Corbach, on the Itter, has a trade in cattle, and is the largest town in the Principality —population 2,300. Pyrmont is noted for its baths and mineral waters. Near it is the grotto named Dunsthohle.

PRINCIPALITIES OF REUSS.

206. Reuss consists of two separate territories, the one Reuss proper lies somewhat intermingled with other territories between Saxony, Bavaria, and the Saxon duchies, and the other the lordship of Gera, which lies north of Weimar, and between two portions of Altenburg. Area 592 square miles.

207. Reuss-Greitz consists of the lordships of Greitz and Burgk—the former occupying the eastern portion of the Reuss territory, and the latter a small isolated district on the Saale. United area 144 square miles. Greitz is traversed by the Elster, and is a hilly district, better adapted for pasture than agriculture. The population amounts to 35,159. Greitz, the capital of the lordship of Greitz, on the right bank of the Elster, is a walled town of 6,000 inhabitants, and the residence of the sovereign prince, who has here two castles and a summer palace, with fine gardens. The courts and public offices are located here, and also a theological seminary, a normal school, and a lyceum. Burgk is the chief place in the lordship of the same name. It is situate four miles north of Saalburg, and contains a castle belonging to the prince. Near it are the important iron mines of Burgkhammer.

208. Reuss-Schleitz occupies the southwestern portion of the Reuss country, and includes also the lordship of Gera and the domain of Saalburg. Area 448 square miles. The main portion of the territory is watered by the Saale, while the smaller territory of Gera lies on the Elster. The surface of both is somewhat hilly, but well wooded, and on the whole fertile. The inhabitants (80,203) are almost wholly Lutherans. The government is administered through a supreme deliberative and administrative college. Schleitz, the capital, and a town of 5,000 inhabitants, is situate on the Wiesenthall, and contains a palace, college, and normal school. It has manufactures of woolen and cotton fabrics, leather, and beer. Near it are Luisenthal and Heinrichsruhe, summer residences of the prince. Lobenstein, on the Lemnitz, here joined by the Kosel, has manufactures of woolens, etc., and about 4,500 inhabitants. Ebersdorf, on the Saale, has a fine residence of the sovereign prince, and is the town from which Napoleon issued his first proclamation to the Saxons in 1806. Many of the inhabitants (in all 1,500) are Herrnhuters. Saalburg is a small town of 1,250 inhabitants on the Saale. Gera, the largest town, is situate on the White Elster, 35 miles south-southwest Leipzig. It is inclosed by walls, and has several churches, hospitals, and schools. The inhabitants (in all 12,000) are chiefly engaged in manufactures. In the neighborhood are well-frequented public baths. Zeulenroda is a manufacturing town, with 4,300 inhabitants. Hohenleuben, a town of 2,000 inhabitants, is the seat of the Vogtland Antiquarian Society.

PRINCIPALITIES OF LIPPE.

209. Lippe, consisting of the two principalities of Schaumburg and Detmold, is situate generally between Hanover and Rhenish Prussia, and on both sides of the Weser. Area 608 square miles.

210. Schaumburg-Lippe consists of two portions, viz., the duchy of Bückeburg, between Hanover, Hesse-Cassel, and Rhenish Prussia, and a small isolated territory between Detmold, Pyrmont, and Hanover. Area 171 square miles. The surface is partly covered by the Bückeburg, but is generally even or moderately diversified. In the west is the forest of Schaumburgerwald. It belongs wholly to the basin of the Weser, which drains it by a number of small streams, of which only the Aue and Aul deserve mention. The climate is mild and the soil very fertile. The principal mineral is coal, of which there are large seams in the Bücke hills. Manufactures are confined to domestic products and weaving; and the chief exports are corn, wood, wool, coal, and linen cloth and thread. Population 29,848. For administrative purposes it is divided into four bailiwicks. The government is a constitutional sovereignty. Bückeburg, the capital, is situate on the Aue, in latitude 52° 15′ north, and longitude 9° 1′ east. Population 3,250. In the vicinity is the summer palace of Baum. Hagenburg and Stadthagen are other principal towns.

211. Lippe-Detmold is bounded on the east by Hanover and Hesse-Cassel, and on all other sides by Rhenish Prussia. Area 437 square miles. It lies on the Teutoburgerwald, and is covered almost throughout by mountains and hills, which divide it into three small basins: one belonging to the Weser, which drains it by the Werra, Bega, and Exter; another belonging to the Ems, and the third belonging to the Rhine, which receives its waters by the Lippe. In the southwest, where both the Lippe and Ems rise, there are several lakes. The climate is mild but humid, and the greater portion of the soil is fertile. The mountains are generally well wooded; and there are extensive iron mines, and quarries of limestone and gypsum, with valuable saline springs. Population 105,490. Detmold, on the Werra, is capital of the Principality. Latitude 51° 56′, and longitude 8° 50′. The principal edifice is the palace. Population 4,716. In the vicinity is the summer palace, and the battle-field on which the army of Varus was destroyed by Hermann, A. D. 9, to commemorate which event a monument was erected in 1838. The other chief towns are Lemgo and Horn.

HANSE TOWNS OR FREE CITIES.

212. The Hanse Towns (Hanse Städte), or Free Cities, now restricted to Lübeck, Bremen, Frankfurt, and Hamburg, formerly comprised all those towns, chiefly in Germany and Holland, that joined the Hanseatic League. When most flourishing, which appears to have been in the fourteenth and fifteenth centuries, the League included 85 towns. The name is derived from "Hansa," which, in old Teutonic, signifies a league for mutual defense. The Hanseatic League was commenced in 1239, between Hamburg and the Ditmarshes, and had for its object the protection of commerce from the robbers who then swarmed both on sea and land, and from the arbitrary exactions of governments which, under the pretense of furnishing a convoy, subjected merchants to extortion.

213. Lubeck has a territory, exclusive of the Vierlanden on the Elbe, which it holds in common sovereignty with Hamburg, of 126 square miles. This territory, the great body of which consists of a tract about 20 miles in length by 3 or 4 miles in breadth, and of nine other isolated portions, is inclosed partly by Holstein, partly by Lauenburg, and partly by Mecklenburg-Schwerin. The population of the whole in 1851 was 54,166. The government is vested in a senate and house of burgesses, elected by corporate companies. The executive resides in two burgomasters—one being also president of the senate and the other president of the supreme court. The several departments of the government are under the direction of the several members of the senate.

214. Lübeck, the capital, is situate on a low ridge at the confluence of the Wackenitz with



SENATE-HOUSE, MARKET-PLACE, AND CATHEDRAL.

the navigable Trave, 12 miles from the Gulf of Lübeck. Population 26,098. It was formerly surrounded by walls and bastions, which have been leveled and converted into pleasant walks, but it is still entered by four gates of ancient feudal structure—that named the Holstein gate being remarkably beautiful; and the whole town furnishes a striking specimen of the quaint

architecture of the fifteenth century. It consists of four quarters, and the communication between the opposite sides of the Trave is kept up by means of four bridges.

215. The buildings and objects most deserving of notice are—the dom or cathedral, a structure of red brick (begun 1170, but not completed until 1341), surmounted by two spires 416 feet high, and containing a choir-screen, regarded as one of the finest specimens of wood engraving in existence, a stone pulpit and brass font, both of admirable workmanship, and a great number of interesting monuments; the Marienkirche, also of red brick, in elegant pointed Gothic; the Ægidienkirche (St. Giles'), the Petrikirche, etc.; the town or senate-house, in ancient Gothic, a fine turreted structure, containing several noble halls with fine ceilings and carvings, and possessed of considerable historical interest as the place where the deputies of the 85 Hanse Towns held their sittings; the town library with 40,000 volumes, the deaf and dumb, blind, and lunatic asylums, the orphan and other hospitals, etc.

216. Lübeck is the seat of the supreme tribunal of appeal for the Hanse Towns, the president of which is named by the senates of the four republics, and the members, six in number, are chosen one by each town, the fifth by Frankfurt and Bremen conjointly, and the sixth by Lübeck and Hamburg alternately.

217. The manufactures, once of great importance, but now greatly decayed, consist of woolen and linen fabrics, starch, hats, soap, tobacco, glue, animal charcoal, leather, sail-cloth, musical instruments, and articles in gold and silver. There are also numerous breweries and distilleries. The trade, consisting chiefly in the export of corn and quills, and the import of manufactures and foreign products, is extensive, and has lately greatly increased.

218. Travemünde, at the mouth of the Trave, on the Baltic, is the shipping port of Lübeck, from which it is distant about 9 miles.

219. Bremen occupies a territory lying on both sides of the Weser, and between Hanover and Oldenburg; and besides this main body, it owns also Bremerhafen, at the mouth of the river. Area 74 square miles: population 88,856. The inhabitants are nearly all Protestants. The executive government of the Republic is vested in a senate, called "die wittheit" (the wisdom), consisting of four burgomasters, two syndics, and 24 councilors, and in the convention of burgesses composed of all resident citizens who pay a certain amount of taxes. The principal manufactures are woolens, cottons, refined sugar, beer, and spirits, etc.; and there is also a considerable trade in the building and fitting out vessels. Bremen, however, is more noted for its commerce than other industries. Vessels drawing 12 to 14 feet of water stop at Vegesack, 10 miles northwest of Bremen, and all larger vessels at Bremerhafen, where a good harbor has been formed. The city of Bremen is reached only by vessels of six or seven feet draft.

220. Bremen, the capital, is situate on the Weser, in latitude 53° 4′, and longitude 8° 49′. Population 60,087. It is divided by the river into two unequal portions—the larger, the Altstadt, on the right, and Neustadt, on the left bank. There is also a populous suburb on the east side of the town, well built, and containing many fine gardens. The streets of the old town are narrow and crooked, and lined with antique houses in the style of the middle ages; while those of the new town are regular and spacious, with handsome houses of modern construction. Between the two towns is an island called the Werder, on the lower part of which are some houses included within the limits of the town. The whole is kept remarkably clean. Communication between the parts is maintained by a bridge. The old town was formerly surrounded by ramparts, but they have been leveled, planted with trees, and converted into beautiful promenades. Both sides of the river are lined with quays.

221. The principal public buildings are—the Cathedral, a Gothic structure of the tenth century, the Church of St. Ansgarius, with a handsome steeple 325 feet high, and the old Town Hall. Below this hall is the "rathsweinkeller," the councils' wine-vaults, which contain wines, chiefly hock, 100 and 200 years old, kept in vats called The Twelve Apostles, and said from age to have become nearly as thick as oil. Other public buildings are—the Exchange, the "Schutting," the Waterworks, the Arsenal, the Weigh-House, and the granaries; the Museum, which contains a large library with collections in natural history, etc.; Dr. Olbers' Observatory, from which he discovered the planets Pallas and Vesta, and some other buildings of less note. Bremen has numerous excellent schools, among which is a school of design, and another of commerce and navigation. Its charitable institutions are also on a liberal scale.

222. The people are chiefly engaged in commerce, but there are considerable manufactures carried on, and within the town there are upward of a hundred breweries and distilleries. A railroad connects Bremen with Hanover, and thence with east, north, and central Germany on the one hand, and with western Germany, Belgium, and France on the other.

223. The town first rose into note in 787, when it was made the seat of a bishopric by Charlemagne, subsequently elevated to the dignity of an archbishopric, which, at the treaty of Westphalia, in 1648, was secularized in favor of Sweden. After various political changes Bremen was taken by the French in 1806, and from 1810 to 1813 it was the capital of the department of the Mouths of the Weser. In 1815 it was restored to its old franchises by the Congress of Vienna, and now holds the third rank among the Free Cities.

224. Vegesack, a town of 3,793 inhabitants, 10 miles northwest, has ship-building docks, and is an outport of Bremen, admitting vessels of 14 feet draft.

225. Bremerhafen, at the mouth of the Weser, and the proper port of Bremen, is formed on ground on its right bank. It is 34 miles north-northwest of the capital, and in latitude (Bremen Light) 53° 49′ 30″, and longitude 8° 9′. Population 5,496. The port consists of an outer harbor, a sluiced dock, and an inner harbor. Since the completion of these works in 1830, Bremerhafen has grown into a considerable village, but the narrow limits of the space, and its sterile nature, give no promise of its ever becoming an important town. It is defended by Fort Wilhelm on the opposite side of the river. The territory occupied by Bremerhafen was purchased of Hanover in 1827.

226. Frankfurt, on the Main, occupies a beautiful but narrow valley, and has an extent of 39 square miles. Population 74,784. The government is vested in two burgomasters, three syndics (judicial officers), and a senate of 42 members, chosen by the people. The burgomasters are elected, one by the syndics, and the other by the senators.

227. Frankfurt, the capital, consists of the town proper, situate on the right bank of the Main, and the suburb Sachsenhausen, on the left bank of the river, here crossed by a bridge of 14 arches. Latitude 50° 7′, and longitude 11° 30′. Population 64,257. From whatever side it is approached, the city has a beautiful appearance. The environs are covered with handsome villas. It is entered by large gates, nine in number, seven belonging to the town, and two to Sachsenhausen; but the walls have been removed. The river is lined by a spacious quay, fronting which is a range of magnificent houses, well deserving the name of palaces, and occupied chiefly by diplomatists, bankers, and rich merchants; but immediately behind it is the old town, consisting generally of indifferent houses, huddled together without any regularity, in narrow streets and lanes, and often built of wood with overhanging gables.

228. Within the town no fewer than 29 squares are counted, but the far greater part of them are very paltry. The most deserving of notice are the Rossmarket, the largest of all, with a fine fountain in its center; the Paradeplatz, the Liebfrauenburg, the Paulsplatz, and Römerberg. The last is perhaps the richest in historical recollections, and possesses in the Römer or town-house a venerable and interesting structure. Its chief interest lies in its interior. In one of its halls (the wahlzimmer) the electors of the empire met and made their arrangements for the election of the emperor, and the senate of Frankfurt now holds its sittings. In another (the kaisersaal) the emperor was banqueted after his election, and waited on at table by kings and princes. The ceiling of this hall has been richly decorated by modern artists, and its walls contain niches filled with 52 portraits, being those of the whole German emperors in regular succession from Conrad I. to Francis II. The most remarkable of the churches are the dom or cathedral, belonging to the Roman Catholics, an ancient structure, surmounted by a fine tower began in 1415 and still unfinished; St. Paul's, the principal Protestant church, with an excellent organ; St. Catherine's, possessed of a fine altar of black marble, and numerous paintings and monuments; St. Leonard's church, close upon the river, on the spot once occupied by a palace of Charlemagne, and a church in Sachsenhausen, originally belonging to the Teutonic knights, adjoining their old castle. Other buildings deserving of notice are the courts of justice, of modern construction; the Saalhof, with its ancient chapel; the Braunfels, the courtyard of which was formerly used for the exchange; the new Exchange, the Palace of the Prince of Thurn and Taxis, the Mint, the Post Office, Theater, Luther's home, and the house in which Goethe was born.

229. Frankfurt is rich in collections connected with literature and art, and in establishments intended to promote them. The chief of these are the Städel Institute, so named after its founder; the Senkenberg museum of natural history; the town library, possessed of 60,000 volumes and many valuable manuscripts, besides a picture-gallery. The literary and other scientific associations include a medical institute, physical, geographical, and polytechnic societies, etc. Among the benevolent institutions are the Senkenberg Hospital, the Hospital of the Holy Ghost, the Orphan Hospital, the House of Refuge, the Lunatic and the Deaf and Dumb asylums, etc. About a mile outside the walls is the new cemetery, at the gate of which is a house where bodies are deposited until decomposition evidences the reality of death, and here every convenience of warm-baths and other appliances needful in cases of suspended animation are kept in readiness.

230. The manufactures of Frankfurt are not important. Those of woolens and linens, which were once carried on to a great extent, have almost ceased to exist. Those which still maintain their ground are chiefly articles of vertu in bronze and metal gilt, chemical products, chocolate, ironmongery, colors, gold and silver thread, japan and brassware, machinery, types, carpets, wax cloth, etc. The central situation of the town has long secured to it an extensive trade, both transit and general. The former, however, threatens to be seriously affected by the railroad system, which has raised up a number of formidable competitors in towns which, formerly excluded, have now been brought within the reach of the great thoroughfares. Still, however, even for railroads Frankfurt forms a central station, and continues to share largely in transit. The general trade is chiefly in wine, silk, wool, and timber. But by far the most important trade of Frankfurt is in money and banking. Its capitalists, among whom Rothschild and Bethmann take the lead, are so powerful as to exert no inconsiderable influence in the money markets of Europe. In connection with the trade should be mentioned the two fairs of Frankfurt, not nearly so important as they once were when 400,000 strangers were known to frequent them, but still large enough to fill the town during their continuance with gayety and animation, and add considerably to the gains of its citizens.

231. As capital, Frankfurt is the seat of its own governing body, the senate, of civil and criminal courts, and other public offices. Its history, too, is possessed of considerable interest. It appears to have been originally a Roman station, but did not attract much attention till the time of Charlemagne, who had a palace and held a council in it. Subsequent emperors made it the seat of the imperial court, and conferred on it important privileges. In particular a charter known by the name of the Golden Bull, granted in 1356 by Charles IV., and still preserved among the archives of the town, made it the place where in future the emperors should be elected. It had long enjoyed an almost uninterrupted course of prosperity, when the French Revolution brought upon it a series of disasters. Its treasures were carried off by extortion, and on one occasion it was actually taken by storm. Under Napoleon it became the capital first of a principality, and then of a grand duchy, with an area of nearly 2,000 square miles. His downfall restored its independence, and the Congress of Vienna finally determined its position by making it a member of the Confederation, and giving it precedence of the four free towns of the Empire. The means of communication are ample: steamers on the Main sail daily to Wurzburg, and railroads branch off in all directions—to Mainz and Wiesbaden, to Darmstadt and Heidelberg, to Cassel, Hanau, and Offenbach, etc.

232. Within the territory of Frankfurt there are nine villages—namely, Bornheim with 3,390 inhabitants, Oberrad with 2,116, Niederrad with 2,016, Niedererlenbach with 742, Hausen with 624, Benames with 612, Dortelweil with 530, Niederursel with 438, and Foersterhaeuser with 59—making a total suburban population of 10,527.

233. Hamburg consists of several detached portions, but the most important and central part, including that on which the capital stands, is inclosed by Denmark on all sides except the south and southwest, where its boundary is the Elbe. It comprehends also the bailiwick of Bergedorf and the little territory of Vierlanden, 16 miles from Hamburg—the sovereignty of both of which it exercises in common with Lübeck—several islands and a small space on

the left bank of the Elbe opposite the town; and at the mouth of the Elbe the bailiwick of Ritzebüttel, in which is the harbor of Cuxhaven. Area 136 square miles; population 219,606. The executive power is lodged in a senate or Rath, and the legislative power with a general control of the administration in the body of the burgesses, represented by three colleges. It is essentially a combination of the aristocratic and democratic principles of government.

234. Hamburg, the capital, is situate on the right bank of the Elbe, 80 miles from its mouth, and at the confluence of the Bille and Alster. Latitude 53° 32′ 48″ and longitude 9° 58′ 30″. Its shape is not far from that of a semicircle, the diameter of which is formed by the Elbe, while its circumference is marked by the Alster, which in the northeast forms two considerable lakes—an outer, called the Grosse Alster, and an inner, called the Binnen Alster. The latter, surrounded by broad planted walks, lined with magnificent houses, is justly considered as the principal ornament of the place. The fortifications with which the city was surrounded until the termination of the French war are now converted into spacious roads and gardens.

235. From the number of its canals Hamburg has a striking resemblance to the larger Dutch towns; but on the whole it is by no means an attractive place, many of the houses being indifferently built. Great improvements, however, have been made since 1842, in which year 61 streets and 1,749 houses were destroyed by fire. In repairing the damages both taste and magnificence have been displayed, and whole streets built up of which any city might be proud.

236. Hamburg was never very rich in public buildings; the most important are—the Church of St. Nicholas, a noble Gothic structure, and St. Peter's, both built since the great conflagration; St. Michael's, which escaped the fire, with a beautiful portal, a finely vaulted ceiling, and a spire 456 feet high, and besides these are other churches which deserve notice. The Exchange is a noble edifice, and worthy of so commercial a city. Among the literary institutions the Gymnasium is the first. It has a library of 200,000 volumes and many valuable manuscripts, a museum, and a good collection of physical and mathematical instruments.

237. Hamburg does not depend much on manufactures, but possesses among others those of linen, cotton, and silk fabrics, hats, sugar, iron, tin, and copperware, machinery, jewelry, musical, mathematical, and surgical instruments, etc. The trade is very extensive, including to a greater or less extent almost every article which Germany is able to sell or requires to buy; and this is greatly facilitated by the extensive means of communication both with foreign countries and the interior. By the Elbe, vessels drawing 18 feet can ascend at high water, and either deliver their cargoes directly in the warehouses which line the bank, or send them by lighters into the very heart of the town. By the same means also a free and uninterrupted communication is given to the interior, and greatly extended by means of canals, which branch off to the Baltic, or penetrate into the basin of the Oder, and through it into that of the Vistula. Railroads connect the city with Rendsburg and Kiel, Schwerin and Rostock, and with Berlin and all east and south Germany. A great drawback to the trade is the want of a sufficient harbor, or rather of anything that can be called a harbor, the vessels being obliged to lie in the river within a space railed off from the fair-way, and protected from the current by means of piles. The population of the city in 1855 was 127,877, but with its suburbs, St. George and St. Paul, 164,145.

238. Cuxhaven, at the mouth of the Elbe, on its southwest side, is 58 miles northwest of Hamburg. Latitude 53° 53′ 42″ and longitude 8° 43′. The harbor is spacious and deep, and furnished with a lighthouse, and is a quarantine station. Vessels lie at anchor off this place waiting for favorable winds, and when going up the Elbe call here for pilots. In winter, when the river is frozen, passengers embark and land at Cuxhaven. It is much frequented in the summer season by sea-bathers, particularly from Hamburg. The chief magistracy is always vested in the senator of the city. Packets ply regularly between it and London, Havre, and Rotterdam. The inhabitants are mostly fishermen and pilots.

[*Weights, Measures, and Moneys.*—In comparatively recent times not only the states severally but almost every commercial city had its own denominations and values. With exceptions, there are now only three systems in use, namely, those of Prussia, Austria, and France.

Weights.—The Prussian pfund or lb. = 467.71 grammes or 1.03124 lb. avoirdupois; the Austrian pfund or lb. = 560.01 grammes or 1.23471 lb. avoirdupois, and the "pfund" of 500 grammes or 1.10242 lb. avoirdupois. The first is used in the Zollverein States generally, the second in Austria and Bavaria, and the last in Baden, the Hesse States, Saxony, and the Saxon Duchies, etc. The pfund of Hamburg and Lübeck = 484.17 grammes or 1.06753 lb. avoirdupois, and that of Bremen = 498.5 grammes or 1.09913 lb. avoirdupois. The "pfund" is divided into 2 marks, 16 unzen, 32 loths, 128 quentins. (Prussia and the Zollverein adopted the "pfund" of 500 grammes in 1858.)

The "pfund" (apothecaries'—common to all Germany) is divided into 12 unzen, 96 drachmen, 288 scruples or 5,760 gran, and is valued = 258.2 grammes or 3,985 grains Troy.

The "Cologne mark" (the gold and silver weight of Germany) is divided into 8 unzen, 16 loths, 64 quentins, 256 pfennings, 912 hellers, 4,020 eschen or 65,586 reichspfennings, and is variously estimated at 3,608 to 3,611 grains Troy. The Prussian commercial pfund is equal to two such marks.

Measures.—The general measure of length is the "elle" of 2 fuss or 24 zollen, and 3 ellen = 1 klafter. The Rhineland or surveyor's fuss = 313.99 millimetres or 12.36 inches. The geographical mile (15 to the degree) = 4.62 miles; the German long mile (12 to the degree) = 5.76 miles, and the German short mile (18 to the degree) = 3.84 miles. The value of the elle in the several states varies considerably. Capacity measures are sufficiently illustrated under Prussia (*antea*) and Austria (*postea*).

Moneys.—The integer of account moneys, except in a few instances, is either the gulden (florin) or the thaler (dollar). The gulden or florin is commonly subdivided into 60 kreutzers, each of 12 pfennings; and the thaler of account (a nominal or fictitious money) into 90 kreutzers. In northern Germany, however, thalers are divided into 24 good groschen, each of 12 pfennings, or, as in Prussia (where the thaler of account is also a coin) into 30 silver groschen, each of 12 pfennings. The different standards by which these denominations are valued may be briefly examined as follows:

1. *Leipziger-fuss or constitution* (old imperial) *money*, so called from its having been introduced by a convention held at Leipzig in 1690 for the regulation of the coinage of the Empire, is estimated at the rate of 18 gulden to the Cologne mark weight of fine silver, and hence the gulden = $0.54007, the thaler of account = $0.81011, and the specie-thaler = $1.08014. This species of money formed the general standard to the year 1753, when it was superseded by what is termed Convention money.

2. *Convention money*, introduced in 1753 by a convention to which only Austria and Bavaria were parties, but which was subsequently adopted by the other states of the Empire, is estimated at the rate of 20 gulden to the Cologne mark weight of fine silver, and hence the gulden = $0.48606, the thaler of account = $0.72909, and the specie-thaler = $0.97212. This money is at present used only in Austria.

3. *Reichsgeld money* is estimated at the rate of 24 gulden to the Cologne mark weight of pure silver, and hence the gulden = $0.40505. Prior to 1838 reichsgeld was in common use in Rhenish Germany, but is now almost entirely superseded by the crown series of coins.

4. *New crown money*, introduced by a mint convention held at Dresden in 1838, and at which nearly all the states were represented, is valued at the rate of 24½ gulden to the Cologne mark weight of pure silver, and hence the gulden = $0.39677, and the two-thaler piece or specie crown of 3½ gulden = $1.38871. This standard has been adopted as the money of account and the basis of coinage by the states of southern and western Germany.

5. *Prussian money* has been adopted by most of the states included in the German Customs' Union, and is minted at the rate of 14 thalers to the Cologne mark weight of pure silver, and hence the thaler = $0.69438.

The equations applicable to the conversion of the above five money systems are—36 constitution = 40 convention = 48 reichsgeld = 49 new crown = 28 Prussian.

The above standards consist wholly of silver, which is the general measure of value throughout Germany. A variety of gold coins, however, are minted; but these form rather articles of merchandise than current money. The principal denominations of gold coins are as follows:

Ducat	Augsburg, 1589.	67 to 1 Cologne mark,	23⅝	fine,	valued at	$2.28755
Carolin d'or		24 "	18½	"		4.99199
Maximilian d'or		36 "	18½	"		3.32799
Gulden d'or		72 "	18½	"		1.66399
Double pistole of 10 thalers	Brunswick, 1742.	17½ "	21⅝	"		8.01804
Pistole of 5 thalers		35 "	21⅝	"		4.00902
½ pistole of 2½ thalers		70 "	21⅝	"		2.00451
10 gulden	Baden, 1819.	34.8 "	21.18-45	"		3.98217
5 gulden		79.6 "	21.18-45	"		1.99108
2½ gulden		159.2 "	21.18-45	"		0.99554

The several pistoles, under the names of Frederick d'or, Carl d'or, August d'or, etc., numbering about 35 to the Cologne mark, were all originally reckoned equivalent to 5 convention thalers of account; but they now bear a premium corresponding to the increased value of gold in relation to silver. They are seldom seen at the present day.

At Hamburg, money is counted in marks of 16 schillings, each of 12 pfennings. The mark, however, is of two values—the *mark current*, which, being reckoned at 34 to the Cologne mark fine, is = $0.28592, and the *mark banco*, which, rated at 27⅔ to the same mark, is = $0.35226. The "mark banco" is a money of exchange, or the rate at which silver is deliverable from the Bank of Hamburg.

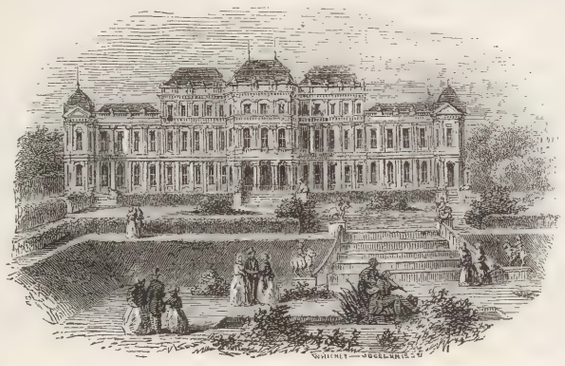
Bremen accounts in rix dollars of 6 kopfstuck or 72 grotes, each of 5 schwaren; 5 rix dollars = 1 old French Louis d'or. The coinage is in accordance with the convention series, the specie gulden being reckoned at 48 grotes.

The money of account at Frankfurt is the gulden of 60 kreutzers, each of 4 hellers, or in rix dollars current of 90 kreutzers. The common reckoning is made in reichsgeld, but in exchanges an imaginary money is used which values the old Carolin d'or at 9 gulden 12 kreutzers. The difference, however, is very slight, being less than half of one per cent. in favor of the current money.

Lübeck reckons in the same series and values as Hamburg, and transacts its exchanges through that market.]

AUSTRIAN EMPIRE.

1. The Austrian Empire is situated between latitude 42° 9′ and 51° 2′ north, and longitudes 8° 35′ and 26° 27′ east; and is bounded on the north by Prussia and Russian Poland, on the east by Russia and Moldavia, on the south by Turkey, the Adriatic, and the Papal States, and on the west by Piedmont, Switzerland, Bavaria, and Saxony. Its greatest length is estimated at 866 miles, and its greatest breadth at 371 miles. The periphery of the Empire measures 4,600 miles, and its area is stated at 257,579 square miles.



PALACE OF THE BELVIDERE, VIENNA.

2. In shape the Austrian Empire forms a solid and compact mass, and its boundaries are in great part formed by natural limits—on the south by a portion of the course of the Danube and its tributary, the Save; on the southeast by the ranges of the Carpathians; on the north and northwest by some of the chains belonging to the Hercynian mountain-system; and on the southwest by the line of the Po and the waters of the Adriatic. The maritime portion bears but a very small portion to its entire extent, the length of the coast being less than 500 miles.

3. According to the most recent accounts, the Empire embraced 21 several countries of various extent. These with the area and population of each in 1854, are shown in tabular form as follows:

	Countries.		Area, sq. m.	Popula.
1.	Lower Austria		7,653	1,714,603
2.	Upper Austria		4,632	755,250
3.	Salzburg		2,766	154,379
4.	Styria		8,669	1,095,578
5.	Carinthia	Illyria.	4,005	346,150
6.	Carniola		3,856	505,886
7.	Goeritz, Gradisca, Istria, and Triest		3,084	613,056
8.	Tyrol and Voralberg		11,111	925,066
9.	Bohemia		20,058	4,800,818
10.	Moravia		8,582	1,972,165
11.	Silesia		1,987	479,321
12.	Galicia (with Cracow)		30,229	5,054,447
13.	Bukowina		4,028	480,664
14.	Dalmatia		4,939	432,337
15.	Lombardy		8,333	3,009,505
16.	Venice		9,220	2,492,968
17.	Hungary		69,399	8,744,481
18.	Servia and Temesvar		11,681	1,574,428
19.	Croatia and Sclavonia		7,072	967,136
20.	Transylvania		23,423	2,285,572
21.	Military Frontier		19,952	1,054,794

—making a total of 257,579 square miles, and 39,411,309 inhabitants.

4. The first eleven of the above-named countries (with the exception of a part of Istria —1,105 square miles, and 170,011 inhabitants), and also Auschwitz and Zator in Galicia (780 square miles, and 190,423 inhabitants) are situated within the limits of Germany. The total area of this part of the Empire is 76,079 square miles, and the population 13,382,189.

5. Lombardy and Venice (15 and 16) are wholly Italian, and are more amply described in a subsequent chapter. The area of Austrian Italy is 17,553 square miles, and the population of the country 5,503,473.

6. The province of Galicia (12) is divided from the other parts of the Empire by the Carpathian Mountains, and was formerly a part of the Kingdom of Poland. Southeast of this, and watered by the Dneister, is the Bukowine (13). These countries, exclusive of Auschwitz and Zator in Galicia, contain an area of 33,477 square miles, and 5,296,888 inhabitants.

7. All the other countries (14, 17, 18, 19, 20, and 21) are comprehended under the general name of Hungarian countries, and form a vast and compact territory, which includes more than one half of the entire extent of the Empire, and more than three eighths of its population, viz., 130,470 square miles, and 15,228,759 inhabitants.

8. Although presenting every variety of surface, the prevailing character of the Austrian dominions is mountainous, there being few districts in which mountain is not found, while the plains do not occupy more than a fifth part of the superficies.

9. Three great mountain systems cover the Empire with their ramifications: the Alps in the southwest, the Bohemian and Moravian mountains in the northwest, and the Carpathians, forming a great curve, the one extremity of which abuts on the Danube at Pressburg, in the northwest, and the other at Orsova, in the southeast. The most elevated summits are—in the Alps of Tyrol, where the Ortlerspitz attains the height of 12,821 feet; in the Carpathians, in which the Lomnitzerspitz attains 8,861 feet, and in the mountains of Bohemia and Moravia, the culminating point of which is the Schneekoppe, which rises to the height of 5,275 feet. The loftiest ranges and the most extensively ramified are found in the Tyrol, Styria, Illyria, the south part of Austria proper, and the east part of Transylvania. In some of these regions the scenery is remarkably bold and romantic, and has been considered equal in grandeur and wildness to that of Switzerland.

10. The most extensive tracts of low or flat lands occur in Sclavonia and in the southeast and central parts of Hungary, stretching along both banks of the Danube and of the Marowa or March; and in the Italian provinces the plains of the Po occupy the larger part of the surface. Much of this level land is of uncommon fertility, but it is met at various points by vast morasses and arid steppes. The principal valleys are found in the Tyrol, Salzburg, Styria, and Illyria, and in the northern parts of the Italian provinces.

11. The Empire belongs to a greater or less extent to four of the great river systems of Europe—those of the Black Sea, the Baltic, the North Sea, and the Mediterranean. The Danube enters the western part of Austria at Passau, on the borders of Bavaria, and flowing in a generally east-by-south direction, past Linz, Vienna, and Pressburg, turns round at Waitzen, in the heart of Hungary, and has a southerly course till it is joined by the Drave, whence its course is again southeast, until at Belgrade it receives the Save. From this point it continues its tortuous course eastward, dividing the Empire from Turkey, until it reaches Orsova, below which it enters Wallachia, and afterward passes through Turkey to the Black Sea, which it enters through a delta of many mouths. Its whole length in the Empire is about 600 miles, and throughout it is navigable, but from its rapidity is only used in its descent except by steamboats, which ascend it to Vienna. Its most important tributaries are—the Inn, Traun, Ems, Marowa, Drave, Save, Waag, Gran, Leitha, Raab, Sarvitz, Theiss, Temes, Aluta, Pruth, Sereth, etc., many of which are navigable, and afford ample means of intercommunication. By a canal beyond the western limits of Austria, the Danube is connected with the Rhine, and a waterway is thus formed between the North Sea and the Black Sea. The Dneister, also belonging to the basin of the Black Sea, rises and has its upper course in eastern Galicia, whence its course is southeasterly through Russia to its mouth at Akermann.

12. The rivers belonging to the basin of the Baltic are the Vistula and Oder—the former draining the western portion of Galicia, and the latter the northern parts of Moravia and Silesia. The Vistula becomes navigable at Cracow, and has a course within and on the border of the Empire of 200 miles. The course of the Oder, before reaching the Prussian frontier, is less than 50 miles.

13. The Elbe and its affluents, belonging to the basin of the North Sea, drains the great Bohemian valley. This river commences its course from the junction of a multitude of brooks, all issuing from the western foot of the Schneekoppe, on the Silesian frontier, but it does not become navigable until it has received an accession of waters from the Moldau. It leaves Bohemia after a course of 160 miles, passing into Saxony through a deep romantic vale between the Erzgebirge and Reisengebirge. The Rhine, another great branch of the river system of the north, forms part of the western boundary.

14. In the basin of the Mediterranean are comprehended the streams which discharge themselves into the Adriatic. Of these the Po is by far the largest and most important. Its principal tributaries are the Ticino, Olona, Lambro, Adda, Oglio, and Mincio, all of which have their influx on its north bank. The Etch or Adige is next in importance. The other rivers flowing into the Adriatic are the Brenta, Piave, etc.

15. With regard to lakes and inland waters the Austrian territories will bear comparison with most other countries of Europe. The Platten-see, in the southwest of Hungary, has an area of 504 square miles, and the Neuseidler-see, about 70 miles northwest, contains 120 square miles. In this part of the Empire there are also many smaller lakes. Transylvania is scarcely less abundantly supplied with lakes, mostly situate on the plateaux of the high mountains. Compared with its extent, however, there is no other province with a greater water surface than that of Upper Austria, and Illyria, particularly the mountain districts of Carinthia and Carniola, abounds in lakes; Dalmatia, too, is full of them. Of the several lakes in the Italian provinces, the largest are Maggiore, Lugano, Como, Garda, Iseo, etc. In the Tyrol and Vorarlberg lakes are numerous, but of limited dimensions; and innumerable small lakes are also found in Moravia, Bohemia, and Galicia. In Galicia they are said to have many hundreds of these sheets of water.

16. The only sea-coast which this great Empire possesses is on the Adriatic, and extends from the Punto di Goro along the frontiers of Venice, Triest, Croatia, and Dalmatia, to the outlet of Lake Skutari. In describing this line, the Adriatic not only makes four considerable bays or inlets—the lagunes of Venice, the gulfs of Venice and Fiume, and the Bay of Cattaro, but forms several narrow straits or canals between the islands and mainland in its northeastern part.

17. A large portion of the countries now composing the Austrian Empire was at one time submerged, particularly Hungary, which in its vast plains, the nature of its soil, and above all the occurrence of fossil sea-shells, fully sustains the theory. Throughout all Austria the tertiary formation prevails, with a margin of the secondary stretching to a greater or less extent into the neighboring countries, and diversified by patches of igneous rocks of the tertiary and alluvial epochs.

18. In mineral productions Austria surpasses probably every other country in Europe. In Transylvania gold is obtained in large quantities, and in Hungary silver abounds. Copper and lead mines exist in different parts of the Empire. The repositories of iron are inexhaustible. Tin is raised in Bohemia. Quicksilver is obtained in many places, but the richest mine, not only in Austria, but in Europe, is that at Idria, in Carniola. Calamine, zinc, cobalt, arsenic, antimony, bismuth, and manganese abound in localities, and there is also abundance of marbles and other building stone, slate, gypsum, and mineral salines. Coal is found in almost every province. The most precious stones are the Bohemian carbuncles and Hungarian opal, both much esteemed; and also chalcedony, ruby, emerald, jasper, amethyst, topaz, carnelian, chrysolite, and beryl.

19. The Austrian dominions lie between the isothermal lines of 60° and 50° Fahr., and have a climate nearly as various as the surface. In some parts, as in Hungary, the annual fall of rain is comparatively small; while in the west and northwest parts of the Empire the rains are frequent and abundant, and the Alpine regions are probably the most rainy in Europe. The northern regions, between latitude 49° and 51°, have an average temperature resembling that of the north of France; between latitude 46° and 49° the heat is considerable, and between 42° and 46°, which comprises the whole of south Austria, it is still greater, and frequently oppressive. In the latter zone the winter lasts only two or three months, and is in general extremely mild. In all these regions, however, the climate is modified by elevation. In the first region the principal products are wheat, barley, oats, and rye; in the second, the same with vines and maize, and in the third, vines, olives, and maize. Forests still cover more than a fourth part of the productive soil of the Empire.

20. Wild deer, wild swine, chamois, foxes, lynxes, and a species of small black bear are found in many districts—the fox and lynx being particularly abundant. Herds of a native breed of horses of small size roam wild over the plains of Hungary. All the domestic animals are plentiful. Domesticated birds, especially ducks and geese, are abundant, and wild birds more numerous than in any other part of Europe. Among the latter are wild geese, bustards, grouse, black-cocks, wood-cocks, wild ducks, widgeon, teal, etc.

21. The whole population of the Empire amounted in 1854 to 39,411,303, or 168.5 to the square mile—a small ratio, considering the great natural fertility of many parts of the provinces. The most populous portion of the Empire is Austrian Italy, and next so Bohemia, Moravia, and Silesia. The least populous are those adjacent to the Alps (Salzburg, Tyrol, Styria, and Illyria), with the mountainous territories of Dalmatia and Transylvania.

22. Nearly half the population belongs to the Sclavonic race, which embraces the majority of the inhabitants in Bohemia, Moravia, Silesia, Illyria, Dalmatia, and the Military Frontiers, and includes almost the entire population of Galicia. The German race predominates in Styria and Tyrol, and forms nearly the whole population of Austria proper, with Salzburg. The Germans, however, constitute little more than a fifth part of the total population of the Empire. In Hungary and Transylvania the inhabitants are divided between the Magyars and various Sclavonic nations; but the former is the dominant race, and embraces a majority of the people. In the provinces of Lombardy and Venice the population is wholly Italian, and people of this nation are also numerous in the southern part of Tyrol and the maritime districts of Illyria and Dalmatia. Jews are most numerous in the towns of Galicia, Bohemia, Moravia, and Hungary. Gipsies, Armenians, and Greeks are scattered over all the eastern provinces.

23. The diversity of languages spoken among the people of so many various races is of course great, and the difference between their dispositions, feelings, and interests not less so. This has always been a source of weakness to the Empire, and has but recently threatened its destruction, and even at the present time this circumstance places its duration in obvious peril. The Sclavonian and Magyar nations are rapidly advancing in intelligence and resources, and are daily becoming less disposed to acquiesce in the yoke of German dominion.



HUNGARIAN OFFICERS AND SOLDIERS.

24. Austria is emphatically a progressive state, and of late years has made immense advances in the development of its natural and industrial resources. In mining, agriculture, manufactures, and commerce a like and marked improvement is perceptible, and at the present time the Empire ranks conspicuously among the foremost states of Europe, and forms one of its great workshops.

25. The products of the Austrian mines in 1847 consisted of—gold 46,968 ounces, and silver 88,428 lbs.; quicksilver, 455,000 lbs.; copper, 75,226 cwts.; tin, 1,220 cwts.; lead, 182,112 cwts.; calamine, 1,394 cwts.; zinc, 8,002 cwts.; pig-iron, 3,886,515 cwts.; cast-iron, 606,969 cwts.; sulphur, 31,939 cwts.; arsenic, 1,668 cwts.; antimony, 5,470 cwts.; cobalt-ore, 3,900 cwts.; graphite, 38,716 cwts.; stone coal, 18,616,702 cwts.; alum, 36,446 cwts.;

copperas, 56,105 cwts.; sulphate of copper, 8,165 cwts., etc. About one half the whole number of the mines belonged to the government, and the other half to individuals. Salt, of which the product amounted to 7,938,763 cwts., is also a government monopoly.

26. Not less than five sixths of the whole surface of the country is open to rural industry. Of the productive lands in 1850, about a third was covered by wood, and another third was arable, an eighth was about equally divided between pasture and meadow lands, and about a fiftieth part was used in vineyards. There were also small areas of rice fields, and of olive, laurel, and chestnut groves. The products of agriculture consisted of—wheat, 40,741,750 bushels; rye, 53,338,875 bushels; barley, 43,662,500 bushels; oats, 71,876,000 bushels; Indian corn, 27,559,875 bushels; millet, etc., 5,701,500 bushels; and an abundance of potatoes, turnips, etc., and legumes, etc. Rice is grown chiefly and most abundantly in the Italian states, and near the coasts of the Adriatic. The quantity of wood prepared for commerce was 255,192,000 feet; and wine was produced to the amount of 39,492,900 eimers.

27. The value of all the several staples of agriculture is stated at $621,804,000; and of this the proportion contributed by the provinces severally was as follows:

Lower Austria	$26,837,500	Tyrol and Vorarlberg	$26,082,000	Venice	$29,337,500
Upper Austria and Salzburg	21,440,500	Bohemia	95,337,500	Military Frontiers	19,688,000
Styria	30,742,000	Moravia and Silesia	42,434,500	Hungary, Croatia, and Sclavonia	125,000,000
Carinthia and Carniola	16,840,500	Galicia and Bukowina	91,542,000	Transylvania	25,000,000
Trieste, etc.	8,629,500	Dalmatia	4,751,500		
		Lombardy	58,164,000		

The quantity of beer produced was 7,469,978 eimers; and the quantity of spirits distilled 1,590,370 eimers.

28. The principal manufactures of the Empire, and the establishments in each branch in the year 1850 were as follows:

Earthenware	199	Cotton fabrics	513	Perfumeries	630
Glass and mirrors	298	Linen and hempen goods	132	Sugar and syrup	105
Iron and steel	1,058	Mixed and printed fabrics	154	Machinery, tools, etc.	109
Ironware	792	Silk and silk fabrics	1,086	Books and lithographs	359
Other metallic wares	392	Cloth and other woolen goods	402	Breweries	2,933
Woodware	172	Leather and leather goods	337	Distilleries	18,967
Paper and paper hangings	169	Chemical products	640		

The number of persons engaged in manufactures in the several provinces is shown in the annexed:

Lower Austria—Vienna	34,098	Triest, etc.	14,976	Lombardy	183,325
" —exclusive of Vienna	48,385	Tyrol	80,871	Venice	106,016
Upper Austria and Salzburg	43,709	Bohemia	138,439	Serbia and Temesvar	22,778
Styria	34,650	Moravia and Silesia	81,735	Transylvania	65,711
Carinthia and Carniola	30,344	Galicia and Bukowina	60,577	Military Frontiers	17,128
		Dalmatia	7,994		

—making a total of 920,736 persons employed, or about 5,500,000 supported by manufacturing industry.

29. Austria, besides its general import and export trade, has also a very considerable amount of business in the transit of goods through its territories by river, road, and railroad. The principal exports consist of agricultural produce and timber, metals, hemp and flax, silk, wool, etc., and manufactured articles; the imports are principally colonial products, oil, cotton, hides, etc., manufactured and partially manufactured goods. In 1850 the value of the external commerce of the Empire was as follows:

Staples.	Imported.	Exported.
Natural and agricultural products	$36,886,200	$9,462,400
Manufacturing materials and partially manufactured articles	38,891,300	23,939,350
Articles wholly manufactured	3,700,200	19,022,000
Total	$79,477,700	$52,423,750

The origin and destination of the imports and exports for the same year are shown in the annexed table:

By Land.	Imports.	Exports.	By Sea.	Imports.	Exports.
South Germany	$7,747,350	$5,559,850	Fiume	$616,050	$927,700
Saxony	11,270,250	6,181,450	Triest	17,776,050	7,726,550
Prussia	6,932,250	3,764,400	Venice	8,082,150	2,658,600
Poland	9,121,600	841,050	Other ports	4,149,050	2,806,800
Russia	9,621,650	1,036,200			
Turkey	1,558,250	5,949,450	Total	$79,477,700	$52,423,750
Italy	1,807,450	5,978,250	Viz., by land	48,859,400	39,804,100
Switzerland	495,600	9,893,450	" by sea	30,618,300	12,619,650

—the value of goods forwarded in transit in the same year was $9,797,500.

30. The following table will show the progress of Austrian commerce for the ten years ending with 1850:

Years.	Imports.	Exports.	In Transit.	Years.	Imports.	Exports.	In Transit.
1841	$52,494,647	$56,160,173	$7,781,795	1846	$63,371,118	$52,910,763	$8,583,363
1842	55,328,876	54,279,531	8,062,350	1847	63,998,967	56,104,039	9,126,500
1843	55,710,429	52,056,977	8,368,729	1848	41,555,745	23,180,964	9,525,959
1844	57,242,376	54,808,912	8,614,300	1849	44,038,473	29,713,010	5,187,692
1845	61,004,239	56,896,292	7,960,136	1850	79,477,700	52,423,750	9,797,500

31. The Austrian merchant marine comprises 269,427 tons of shipping, of which 18,750 tons was built in the year 1849. Regular steam communication to and from Triest is kept up by the Austrian Lloyd Company with 58 ports of the Adriatic, the Grecian Archipelago, Egypt, Syria, Turkey, the Black Sea, and the Danube. In this service 43 magnificent steamers are employed. The shore and river fisheries are of considerable value.

32. The railroad system of Austria is only partially completed. The principal lines are those extending from Vienna northward to Prague and Olmutz, and thence to Dresden, etc.; and southward to Bruck, Marburg, Laybach, and Triest. There is also a line from Budweis *via* Linz to Gmunden. In Italy a railroad extends from Milan *via* Brescia, Verona, Vicenza, and Padua to Venice; and from Pesth, in Hungary, another extends eastward *via* Pressburg to Vienna; and still another from Pesth to Izobnok. There are also several short lines and branches.

33. Canals are very numerous, but none of any great length. The principal are found in Italy and Hungary. They are chiefly used to connect the rivers, and in many cases are also of use to the agriculturist, to irrigate the lands. The total length of canal is about 850 miles, of which about 500 miles are in Hungary and 320 in Italy. The ordinary roads are excellent. Yet with all these improvements, and the adoption of steam navigation on the Danube and other rivers, the means of intercourse are still inefficient, and much in this relation remains to be yet accomplished.

34. The several principalities or provinces which have already been enumerated as forming the Austrian Empire are united under a hereditary monarchy, the head of which assumes the title of Emperor of Austria, King of Jerusalem, Hungary, etc.; and the prefix of "Apostolic Majesty" has been borne by the sovereign since the year 1758. The emperor, since the suppression of the revolution of 1848 and abrogation of the constitution of that year, has enjoyed every right and prerogative attached to sovereignty, whether legislative, judicial, or executive. The provincial states, whose business it is to receive the laws framed by the emperor on financial matters, and to allocate and apportion the amount of supplies to be contributed by the different districts, meet once a year, or oftener if necessary. The executive government acts through councils or boards, each having a chancellor, who communicates with the provincial councils and with the cabinet. Hungary and Transylvania have each a separate chancery, and are in all local matters governed by their own laws, as are also the Italian states. Each province, however, is under a provincial governor, appointed by and immediately amenable to the emperor.

35. In July, 1854, a new code of criminal process was decreed, and has since been carried into operation with more or less success in all the provinces. It abolishes the barbarities and other abuses so conspicuous under the old system of jurisprudence, and conforms to the civilization and humanity of the present age. Secret inquisition, torture, and seigneurial jurisdiction are suppressed, and free defense and equality of all orders and classes before the law established. The system thus established acts uniformly wherever practical, and where not prevented by provincial rights.

36. According to the estimates for 1851 the resources of the treasury amounted to $111,626,019, of which sum $102,880,292 represented ordinary, and $8,745,727 extraordinary receipts; and the estimated expenditures amounted to $139,210,235, of which $128,779,185 were ordinary, and $10,431,050 extraordinary expenditures. The public debt in 1852 amounted to $611,884,900. The amount of government paper money in circulation in May, 1852, did not exceed $76,500,000.

37. The numerical strength of the army on the peace establishment is 400,481, of which 48,842 are cavalry. The war establishment counts 589,160 men. Every Austrian is liable to military duty for a period of eight years. Connected with this branch of the public service there are several military schools, as the Academy of Engineers at Vienna; the military academies of Milan, Wiener-Neustadt, and Waitzen; the military schools of Olmutz and Gratz, with a variety of other institutions, all having reference to military purposes.

38. The principal fortified places in the Empire are—Josephstadt, Theresienstadt, Olmutz, Mantua, Peschiera, and Comorn, all of the first class; and Peterwardein, Brod, Alt-Gradisca, Arad, Esseg, Karlstadt, Karlsburg, Munkatsch, Temesvar, Ragusa, Cattaro, Zara, Legnago, Venice, Kufstein, Salzburg, Prague, and Konig-Gratz, of the second class. Austria also maintains garrisons in Mentz, Placentia, Ferrara, and Comacchio.

39. The navy, which is under a naval commandant, is comparatively small, consisting, in 1853, only of 6 frigates mounting 215 guns, 5 corvettes with 92 guns, 7 brigs with 112 guns, 6 galliots with 58 guns, 11 steamers with 61 guns, 2 pontoons with 20 guns, 1 bomb-vessel with 10 guns, 34 pinnaces with 102 guns, 18 shallops with 60 guns, 5 hermaphrodites with 12 guns, and 9 small vessels. Total 104 vessels, carrying 742 guns.

40. The educational establishments of the Empire are divided into nine classes, the statistics of which, in 1850, were as follows:

Classes.	Number.	Teachers.	Scholars
Universities	9	466	12,776
Academies, etc.	41	488	1,152
Lycea	33	240*	4,573
Theological schools	89	363	4,137
Philosophical schools	73	289	5,289
Gymnasia	313	1,985	57,137
Special schools	320	?	?
German schools	1,385	?	?
Peoples' schools†—High	388	43,381	males 1,057,136 and females 830,793
" " —Parish	48,181		
" " —Girls'	2,868		
" " —Mutual instruction	11,775		602,306
" " —Infant‡	128	?	12,629

In the year above named, the expenditures on account of education amounted to $4,609,886, of which sum $711,258 were supplied by the state and city school funds.

41. The condition of the several universities is shown for the year indicated as follows:

Universities.	Theology. Prof.	Theology. Students.	Law. Prof.	Law. Students.	Medicine. Prof.	Medicine. Students.	Philosophy. Prof.	Philosophy. Students.	Mathematics. Prof.	Mathematics. Students.	Total. Prof.	Total. Stud'ts.
Vienna	9	118	11	587	33	428	30	643	—	—	83	1,776
Gratz	6	136	11	456	1	157	12	318	—	—	36	1,067
Innspruck	—	—	6	333	7	80	10	328	—	—	23	741
Prague	10	222	14	820	57	963	32	865	—	—	113	2,870
Olmutz	7	170	5	321	7	134	6	331	—	—	35	946
Lemberg	10	284	8	288	—	—	8	54	11	236	37	812
Pavia	11	771	26	471	(21§)	85	(21§)	218	—	—	58	1,489
Padua	6	211	9	783	15	564	9	193	7	190	46	1,941
Pesth	8	65	6	214	16	559	14	253	1	43	45	1,134

42. The volksschulen or peoples' schools form the basis of the whole system of education, and at least one is established in each parish. In these elementary schools education is strictly national, and every individual between the ages of six and twelve, male and female, without distinction of rank or creed, is understood to be attending them. In 1850 the whole number of children of school age, not including those in Hungary, was 3,001,999—1,555,343 males, and 1,446,656 females; and the number in actual attendance was 2,537,001—1,404,128 males, and 1,133,473 females, making about 85 per cent. of the whole. Here education ceases to be compulsory; but all for whom a superior or professional education is required are amply provided by the other classes of institutions.

43. Austria is rich in libraries, and has also numerous literary and scientific societies, with museums, collections, gardens, etc.; and several of the principal cities have observatories, many of the first class. In 1850 there were in the Empire 49 great public libraries, containing an aggregate of 2,408,000 printed volumes and 41,103 volumes of manuscript. The imperial library at Vienna contains 450,000 volumes, and that of Milan 170,000: both of these are entitled to a copy of every work issued. The principal university libraries are those of Breslau, with 250,000 volumes; of Prague, with 130,000 volumes; and of Vienna, with 115,000 volumes; and there are large public libraries in all the cities: those in Breslau contain 370,000 volumes, of Buda-Pesth 68,000, of Milan 250,000, of Padua 177,000, of Prague 198,000, of Venice 137,000, of Vienna 453,000, etc.

* Exclusive of eight Hungarian Lycea.
† Exclusive of Salzburg and Hungary. In Hungary there were 2,293 peoples' schools, with 230,617 scholars
‡ Exclusive of 23 in Hungary and 1 in Transylvania. § The same professors in both departments.

44. The state religion of the Empire is the Roman Catholic, and next to it is the Greek Church. Calvinism and Lutheranism are also professed by a large body of the people—the former mostly in Hungary and Transylvania, and the latter in the German provinces and Galicia. The statistics of these several churches in 1849 furnish the following summary:

Churches.	Archbishops.	Bishops.	Parishes	Chapelries.	Churches.	Archbishops.	Bishops.	Parishes.	Chapelries.
Roman	12	61	13,456	1,956	Greek (non-united)	1	10	2,992	206
Greek	1	6	3,788	497	Protestant	—	—	3,175	—

—there is also 1 Armenian archbishop, and 10 Lutheran, and 8 Calvinistic superintendencies and 1 Unitarian. The secular clergy consist of—Roman Catholic and Armenian, 41,944; Greek Catholic, 5,098; Greek (non-united), 4,041; and Protestant of various denominations, 4,509; and there were in the country 730 Catholic monasteries with 9,719 monks, and 175 nunneries with 4,769 nuns; also 44 Greek (non-united) houses with 274 inmates.

45. The principal towns in the German provinces of the Empire are enumerated in the following table:

Provinces.		Cities and Towns.	Market Towns.	Villages and Hamlets.	*Capitals* and Chief Towns, with population.
Lower Austria		35	240	4,312	*Vienna*, 431,889; Neustadt, 12,363; Bruck, 3,127.
Upper Austria		14	97	6,026	*Linz*, 26,676; Steyer, 12,287; Gmunden, 3,718.
Salzburg		3	21	734	*Salzburg*, 14,155.
Styria		20	96	3,602	*Gratz*, 51,849; Marburg, 6,611; Bruck, 1,617.
Carinthia	Illyria	11	25	2,747	*Klagenfurt*, 12,054; Villach, 5,819; Bleiberg, 5,822.
Carniola	Illyria	14	17	3,174	*Laybach*, 17,357; Idria, 5,113; Adelsberg, 1,629.
Littoral	Illyria	30	14	947	*Triest*, 70,846; Goritz, 12,692; Rovigno, 11,219; Pirano, 7,812; Capo d'Istria, 6,908; Pisino (Mitterburg), 1,684.
Tyrol and Vorarlberg		22	28	1,427	Trent, 13,142; *Innspruck*, 12,800; Botzen, 8,713; Roveredo, 7,742; Schwaz, 6,904; Hall, 5,327; Bregenz, 4,879; Brixen, 3,712
Bohemia		295	272	12,075	*Prague*, 118,405; Reichenberg, 12,718; Konigingratz, 10,812; Eger, 10,747; Pilsen, 9,857; Kuttenberg, 8,987; Budweis, 8,135; Leipa, 5,829; Gitschin, 3,912; Pardubitz, 2,605.
Moravia		90	181	3,029	*Brunn*, 45,189; Olmutz, 19,127; Iglau, 15,123; Prosnitz, 10,492; Sternberg, 8,722; Neutitschen, 10,224; Nicolsberg, 7,144.
Silesia		27	5	662	*Troppau*, 11,651; Teschen, 7,199.

46. Vienna (Wien), the capital, and the largest and most important city of the Empire, is situate near the right bank of the Danube, which here receives the small rivers Wien and Alster. Latitude (observatory) 48° 12′ 36″ and longitude 16° 23′—elevation 548 feet above the sea. The city proper is small when compared with its suburbs. The strong fortifications which formerly surrounded Vienna have been razed and converted into lofty gardens. The external circuit of the suburbs is 14 or 15 miles. In the city the streets are narrow, the squares small, and the houses lofty. The suburbs are not so splendidly built, but are far better laid out and more elevated. Vienna contains innumerable buildings and objects of interest and importance. The palace, the offices of government, the residences of the higher classes, the museums, libraries, and galleries are in general splendid edifices. The Kaiserburg or imperial palace, an immense building of irregular form, presents a rare magnificence and beauty of architecture. The churches are splendid in their gray habiliments of centuries; and the city is most liberally supplied with scientific, educational, and charitable institutions. The University dates from 1237, and is one of the best in Europe. No city of the world can supply more gratification to antiquarian and historical students; the imperial library contains 450,000 volumes, and the museums are filled with antique and historical collections of medals, armor, and other interesting objects. Vienna is likewise the most important manufacturing town of the Empire, and more than 80,000 persons find employment in its various industries. The theaters, the opera, the restaurants, and other places of public resort, are all excellent. Its business is very much promoted by the facilities of water and road that it enjoys, and its favorable position gives it a large share of the transit trade between the Adriatic ports and the interior. Its railroad connections are very complete, extending north through Moravia and Bohemia into the heart of Germany, east into Hungary, and south to Triest and Italy.



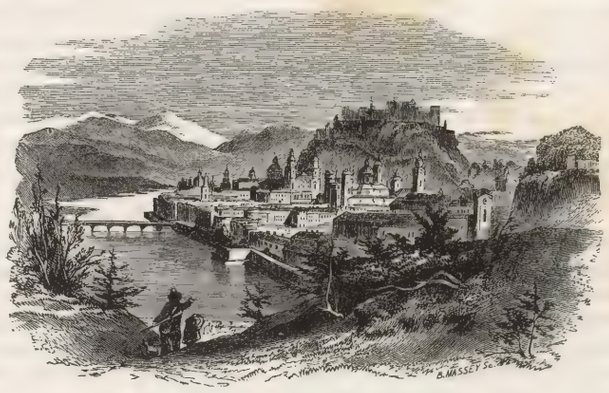
THE PLAZA, VIENNA.

47. Salzburg is situate at the base of two precipitous heights, on the Salza River, 156 miles west-southwest of Vienna. Its site is one of the finest in Germany. The town itself is not particularly attractive. The streets are narrow, but there are several fine squares; the buildings generally are remarkable for the superabundance of the marble used in their construction. Its manufactures consist chiefly of leather, ironware, cotton goods, etc. Its trade is considerable.

48. Gratz, situate on both sides of the Muhr, is 90 miles south of Vienna, with which and Triest it communicates by railroad. It is irregularly built, with narrow and steep streets. The Cathedral, built 1456, is a majestic Gothic structure. The Burg, an old palace of the Styrian dukes, now forms the governor's residence, and the Landhausen in which the states meet. The University, founded 1586, has an extensive library; and there are besides this numerous scientific and educational establishments. Gratz has also a lunatic asylum. Manufactures consist chiefly of woolen, cotton, and silk tissues, leather, and numerous articles in iron. The trade is mostly in iron, timber, flax, hemp, and seeds. Coal and argentiferous lead are found in the neighborhood.

49. Laybach is situate on the river so called, 35 miles northeast of Triest, and on the railroad to Vienna. The town with its suburbs lies on both sides of the river, here crossed by five bridges, and is for the most part indifferently built. Its manufactures consist chiefly of woolen and silk goods, and it enjoys a considerable transit trade.

50. Triest, the chief sea-port and naval station of the Empire, is situate at the northeast extremity of the Adriatic, and 214 miles southwest from Vienna, with which and Europe generally it is connected by railroad. Latitude 45° 38′ 36″ north, and longitude 13° 46′ 30″ east. It stands partly on a slope and partly on a level, circumscribed by hills, and consists of the old town, the new town or Theresienstadt, the Josephstadt, and the Frauzensvorstadt. The old town, situate on the slope, is surrounded by old, black walls and has narrow and steep streets. The new town, occupying the level near the harbor, is regularly built, and has several fine squares and streets, lined with handsome white houses. A broad canal runs from the harbor through this part of the town, and enables the merchants to ship and unship at their very doors. The principal public buildings are the Exchange, the Cathedral, and other churches, the Custom House, Post Office, and the theaters. Outside, near the shore, is the Lazaretto, one of the largest and best arranged in Europe. The harbor, which is crescent-shaped, is of easy access, except to the northwest, completely sheltered and deep enough to admit vessels of 300 tons to the quays, and the largest shipping rides safely at anchor in the roads. Close to the harbor are extensive building-docks. The trade of Triest is very extensive; in 1856 the imports from foreign countries were valued at 91,627,897 florins, and the exports thereto at 61,418,602 florins, and its domestic commerce by sea and land was represented by imports to the value of 62,143,302 and by exports of 82,279,530 florins. Though more a commercial than a manufacturing town, the manufactures are numerous, and in some branches extensive. The principal articles are white lead, wax candles, soap, spirits, earthenware, and morocco leather. A great number of vessels are also built here, and an active shipping is carried on in the bay. The town possesses various endowments and establishments—benevolent, educational, literary, and scientific. It existed under the Romans.



VIEW IN THE CITY OF SALZBURG.

51. Innspruck is beautifully situate on the Inn, near the confluence of the Sill. It consists of the town proper and five suburbs. For the most part it is a well-built place, the houses, four or five stories high, being generally of a limestone breccia, and in the Italian style. The manufactures include woolen, silk, and cotton tissues, gloves, glass, etc.; and the trade, chiefly transit, is of considerable importance.

52. Prague (Praha) is situate on both sides of the Moldau, here crossed by a stone bridge of 16 arches, and also by a chain bridge, 153 miles northwest from Vienna. No city in Germany surpasses Prague in the grandeur of its appearance. The town is inclosed by a wall and fosse, and defended by extensive outworks. The principal public edifices are—the old castle or palace of the Bohemian kings, containing 400 apartments; the Cathedral; the University, the first great public school established in Germany; the Clementinum, a huge pile, containing a series of magnificent halls and a very valuable library; the Alt Rathaus or old town-hall, a Gothic structure of the fifteenth century; the chief synagogue of the Jews, probably as ancient in date as the twelfth century; the Military Hospital, Theater, Opera, National Museum, Museum of Natural History, Picture Gallery, etc. The manufactures consist of gold and silver embroidery; silk, woolen, cotton, and linen goods; hats, paper, candles, soap, etc.; machinery, musical and mathematical instruments, fire-arms, porcelain, and fine and imitation jewelry. Its trade is of great importance, and owing to its central position on a navigable river, and to its facilities of transport by road and railroad, is the great entrepôt for all the traffic of the country.



VIEW IN THE CITY OF PRAGUE.

53. Brunn is situate near the confluence of the Schwarza and Zwittawa, 70 miles from Vienna. It stands on the slope of the hill, surrounded with walls cut with four gates, and has 10 suburbs. Behind the town is the castle of Spielberg, formerly a citadel, but since 1809 converted into a state prison. Brunn has several public squares, with fountains; several handsome churches; the Landhaus, in which the states assemble; the Town Hall; many splendid mansions of the nobles; extensive barracks, etc. Scientific and learned institutions are numerous. The number and extent of its woolen, silk, and cotton factories have obtained for Brunn the name of the Austrian Leeds. Its other manufactures are numerous and varied. Its trade also is very extensive, being highly favored by its central position in regard to Prague, Breslau, Pesth, and Vienna, with all of which it is now connected by railroad.

54. Olmutz, on the Marowa, which forms almost a complete circle round the city, and 103 miles from Vienna, with which, and with Prague, it is connected by railroad, is extensively and strongly fortified, and rises gradually on all sides toward its center. It was formerly the capital of Moravia. It is well built, and has many fine edifices. Its manufactures consist chiefly of linen and woolen cloths, ironware, and articles in ironware. It is one of the strongest fortresses in the Austrian dominions. Lafayette was confined here in 1794.

55. The principal towns of Galicia, with Cracow and Bukowina, are as follows:

Provinces.	Cities and Towns.	Market Towns.	Villages, etc.	Towns, with Population.
Galicia	95	193	5,986	*Lemberg*, 75,292; Cracow, 43,926; Tarnopol, 10,983; Stanislaw, 9,379.
Bukowina	3	4	276	*Czernowitz*, 12,869; Sambor, 6,718; Bochnia, 5,632; Brzezany, 5,497.

56. Lemberg is situate on the Peltew, an affluent of the Bug, and in a beautiful and romantic district. It was originally surrounded by walls and ditches, which have been leveled and converted into walks. The buildings most deserving of notice are the Greek Metropolitan Church, with the Archbishop's Palace, magnificent structures in the Italian style, finely located on a height west of the town; the Latin Cathedral, built in 1370; and the Dominican Church, after the model of St. Peter's at Rome. The manufactures consist principally of woolen and cotton tissues, and in the vicinity there is a very extensive government tobacco manufactory. But Lemberg depends far less on manufactures than trade. This, which is mostly in the hands of Jews, who here number some 20,000, is very important, and concentrates a great part of that of all Galicia.

57. Cracow, formerly the capital of the republic of the same name (extinct since 1846), and anciently of Poland, is situate in a beautiful valley on the left bank of the Vistula. It has three suburbs, and is surrounded by promenades. On the whole it is a decaying town, but contains many ancient and interesting edifices, the principal of which is the Cathedral, where were formerly deposited the crown jewels and regalia, and where lie the remains of many of the ancient kings of Poland. It has 50 altars and above 20 chapels. The castle called Konigsburg, founded about A. D. 700, is a spacious structure. The other remarkable edifices are the Episcopal Palace and the old Town Hall. The city has also a university, a college, an academy of painting, a public library, etc.

58. The principal towns in the Hungarian provinces are as follows:

Provinces.	Cities and Towns.	Market Towns.	Villages, etc.	Towns, with Population.
Hungary	95	595	8,385	*Buda-Pesth*, 128,219; Pressburg, 39,177; Gross-Wardein, 18,727; Kaschaw, 16,055; Oldenburg, 12,972; Miskoles.
Serbia and Temesvar	8	65	689	Zombor, 23,131; *Temesvar*, 18,927; *Neusatz*, 17,856; Gros-Becskerk, 13,202; Lugos, 6,792.
Transylvania	25	65	2,684	Klausenburg, 23,122; *Hermannstadt*, 21,512; Karlsburg, 12,916; Vasarhely, 10,687; Dees, 5,386.
Croatia and Sclavonia	9	47	296	Esseg, 12,856; *Agram*, 12,792; Fiume, 11,874; Warasdin, 9,684; Posega, 6,931; Kreutz, 3,129.
Military Frontiers	12	9	1,760	*Peterwardein*, 4,671; *Brod*, 2,479.
Dalmatia	15	32	868	Spalato, 10,982; *Zara*, 6,982; Sebenico, 6,422; Ragusa, 6,296; Sign, 4,137; Cattaro, 2,127; Macarsca, 1,876.

59. Buda-Pesth, the capital of Hungary, consists of two towns on opposite sides of the Danube, and connected by a magnificent suspension-bridge. Buda, on the west bank of the river, is the residence of the viceroy and the seat of government. Pesth is the seat of the supreme judicial tribunals. Both are handsome and strongly fortified cities, having numerous public buildings and civic institutions for the promotion of learning, science, and economic industry. Manufactures are extensively engaged in, and, next to Vienna, Pesth is the most important commercial city on the Danube. The suburbs are extensive, and much better laid out and better built than the cities themselves. Near Pesth is the Rakosfeld, a plain where the diet, the great national assembly of the Magyars, used to be held in the open air. Buda is noted for its sulphur baths, which have been successively used by the Romans, Turks, and Christians. Of the population, about five sevenths reside in Pesth and the remainder in Buda.

60. Pressburg, on the left bank of the Danube, 34 miles from Vienna by railroad, is the seat of the Hungarian legislature, and for a long time was the capital of the Kingdom. It is important likewise for its manufactures and commerce. Lower down the Danube are the fortified cities of Raab and Comorn.

61. Agram, the capital of Croatia, is situate on a hill near the Save, and is the residence of the Ban and seat of the supreme court. Fiume is a small sea-port town on the Gulf of Quaznere, 40 miles southeast from Triest. It has several manufactures, but though a free port its commerce is very limited. Esseg and Posega are the principal towns of Sclavonia. In the Voivode and Banat the principal places are—Temesvar, the capital, Gros-Becskerk, Lugos, Neusatz, and Zombor. Hermannstadt is the capital of Transylvania. On the Military Frontiers the chief towns are Peterwardein, Brod, Gradisca, etc.

62. Ragusa is situate on a peninsula at the mouth of the valley of Ombla, and is surrounded by old walls flanked with towers and bastions. It has several remarkable buildings, chiefly ecclesiastical and charitable. Outside the town are two extensive suburbs. Its manufactures are not important; but its trade with Italy and the Levant is extensive, and has the advantage of two good harbors. Cattaro, at the south extremity of the gulf of the same name, is 38 miles south of Ragusa, and lies at the foot of steep limestone rocks, strongly fortified, and surmounted by a castle. The buildings are Venetian, and the streets narrow, irregular, and dark. Its harbor is spacious, but is little frequented.

63. After the formation of the German Empire in the ninth century, Charlemagne subdued the district on the south bank of the Danube to the east of the Enns, and converted it into a military frontier to repel the incursions of the Huns and other barbarous nations. It was then called Oest-reich or east country, and subsequently became the nucleus of the present Empire. About the middle of the twelfth century Upper Austria was added to it, and the governors, who had hitherto held the title of margraves or lords of the marches, were now styled dukes. Soon after Styria came by request to the dukes of Austria, when the latter for the first time established the ducal residence at Vienna. Hitherto the dukes of Austria had been of the house of Bamberg, but in 1246 the male branch became extinct, and Rudolph of Hapsburg, Emperor of Germany, vested the succession on his son Albert, and with this prince commenced the present dynasty. Various accessions of territory by marriage, purchase, and inheritance now rapidly increased the extent of the ducal dominions, raising Austria from the rank of a mere province to that of an important state, and giving it a corresponding influence in the councils of Germany.

64. Continuing to extend its limits, Austria finally became much greater than any other state of the Empire, and its dukes were elevated to the rank of emperors of Germany, the first so raised being Alfred II., who, in 1438, obtained the imperial crown. In the latter part of the sixteenth century Maximilian I. married the daughter and heiress of Charles the Bold, duke of Burgundy, and by her secured further large accessions to his dominions, in the Netherlands, Franche-Comté, and Artois. In 1521 Ferdinand I. married Ann, sister of Louis, king of Hungary and Bohemia, and succeeded to those states on the death of the latter, which occurred in 1526, at the battle of Mohacz.

65. The vast and continually increasing power of Austria having excited the jealousy, and her oppressive conduct toward the Protestants the fears, of the other European nations, a war was the result; from its duration, from 1618 to 1645, known as the Thirty Years' War. It was a war between the Catholic princes of the Empire with Austria at their head, and Saxony and the Protestant states, aided by Sweden and France. This war ended in the treaty of Westphalia, which secured the independence of the different states of Germany, the free exercise of the Protestant religion, and for a time the tranquillity of Europe.

66. In 1740 the male line of the house of Hapsburg was brought to a close by the death of Charles II., when the succession devolved on his daughter, Maria Theresa, who, with the aid of English subsidies, successfully repelled attacks on her dominions by Saxony, Bavaria, and France. With Silesia she was less successful, and after a seven years' war it was ceded to Prussia in 1763. Maria Theresa was succeeded by her son, Joseph II., a well-meaning and enlightened prince. Under this reign Galicia was acquired from Poland and Bukowina from Turkey.

67. In 1804 Francis I. assumed the title of Hereditary Emperor of Austria, and two years after renounced the title of Emperor of Germany. This latter event had been preceded by the formation of the Confederation of the Rhine, and the entire dissolution of the old Germanic Empire. The late emperor, Ferdinand I., succeeded his father in 1835; and, in 1848, in consequence of the then revolutionary state of his dominions, abdicated in favor of his nephew, Francis Joseph I. In 1846 the last accession to the Empire was made by the seizure of Cracow and its annexation to Galicia.

[*Weights, Measures, and Moneys.*—Composed of numerous nationalities, the standards of the Austrian Empire are diverse and conflicting. Formerly each commercial city had its own, and even at the present day almost every province varies in this respect. The standards of Vienna, however, are now official and those in use in the public accounts. In Italy the French system has been in use since 1803.

WEIGHTS.—The "pfund" or lb. of 16 unzen, 2 mark, 32 loth, and 128 quentin, or 512 pfennize = 560.0121 grammes or 8,643 grains Troy or 1.23471 lb. avoirdupois; 100 lb. = 5 stein = 1 centner. The "pfund" (Bohemia) = 514 grammes or 1.13333 lb. avoirdupois;—(Galicia) = 420.0099 grammes or 0.92605 lb. avoirdupois; and—(Cracow) = 405.504 grammes or 0.89414 lb. avoirdupois.

MEASURES.—The "elle" of 2 fuss or 24 zollen = 779.1922 millimetres or 30.67772 inches; 10 fuss = 2 klaften = 1 ruthe, and 2,000 ruthen = 1 post mile. The joch = 6,889 square yards. The eimer of 4 viertel, 40 maas, 70 kopfen, or 168 seidel—for wine = 58.01562 litres or 15.36478 gallons, and—for beer = 60.1381 litres or 15.88788 gallons: 32 eimers = 1 fuder. The metze of 4 viertel, 8 achtel, 16 massel, or 128 becher = 61.4994 litres or 1.74522 bushels; 30 metzen = 1 muth. In Tyrol, the yhren = 10.83 litres or 2.86 gallons, and the staro = 32.9769 litres or 0.93585 bushel. In Illyria, the ell (silk) = 640.65 millimetres or 25.22 inches and (wool) = 675.84 millimetres or 26.61 inches; the orna of 36 boccali = 59.04 litres or 15.59 gallons; and the staro = 74.0899 litres or 2.10261 bushels. In Bohemia the elle = 594 millimetres or 23.38 inches: the fass = 250.63 litres or 66.21 gallons, and the strich = 93.6 litres or 2.66 bushels. In Galicia, the lokieç = 576 millimetres or 22.68 inches; the garnieç = 4 litres or 1.05676 gallon; and the korseç = 123 litres or 3.63 bushels. In Hungary, the eimer = 50.6844 litres or 13.39 gallons; and the metze = 50.6844 litres or 1.43836 bushels. In Transylvania, the orna of 36 boccali = 53.852 litres or 14.02507 gallons, and the metze = 63.1080 litres or 1.79 bushel.

MONEYS.—Austrian accounts are kept in florins of 60 kreutzers, each of 4 pfennigs. The florin of account is reckoned in convention money, and is valued at about 48⅛ cents. The gold coins are the ducat, = $2.28 and sovereign of three ducats, with their multiples and subdivisions. The silver coins are the rix dollar (10 to the fine mark), the florin or half rix dollar, the zwanziger or sixth of the rix dollar, etc. The scudo of Italy is equivalent to the rix dollar and the lira to the zwanziger.]

SWITZERLAND OR THE SWISS CONFEDERATION.

1. SWITZERLAND lies between latitudes 45° 46′ and 47° 49′ north, and longitudes 5° 55′ and 10° 33′ east from Greenwich; and is bounded on the north by Baden and the Rhine, on the northeast by Wurtemburg and Bavaria and Lake Constance, on the east by the Rhine and the Grison Alps, which separate it from Lichtenstein and the Tyrol, on the south by Austria, Italy, and Piedmont, and on the west and northwest by the French territory. The greatest length of this country, east and west, is upward of 200 miles, and its greatest breadth is about 140 miles. The area is estimated at 15,272 square miles.

2. The Confederation is composed of twenty-two cantons, forming 25 independent states:

Cantons.	Area, sq. m.	Pop. (1852).	Pop. to sq. m.	*Capitals* and Chief Towns.
Aargau	502	199,720	298.8	*Aargau*, 4,627; Zoffingen, 3,175; Laufenburg; Baden.
Appenzell, Outer	152	43,599	360.9	*Herisau*, 8,387; Trogen, 2,400; Gais.
Appenzell, Inner		11,270		*Appenzell*, 2,910.
Basel, City	184	29,555	420.6	*Basel*, 27,313.
Basel, Country		47,830		*Liesthal*, 3,032.
Bern	2,567	457,921	178.6	BERN, 27,758; Thun, 4,816; Bienne; Hofwyl.
Fribourg	567	99,805	176.0	*Fribourg*, 9,065; Morat, 1,853.
Geneva	94	63,932	680.1	*Geneva*, 29,108.
Glarus	279	30,197	108.3	*Glarus*, 4,082.
Grisons	2,976	89,840	30.2	*Coire* or Chur, 5,943; Tusis; Disentes; Splugen.
Luzern	588	132,789	224.9	*Luzern*, 10,068.
Neufchâtel	280	70,679	252.4	*Neufchâtel*, 7,727; Loele, 6,212; Chaux-de-Fond.
St. Gall	754	169,508	224.8	*St. Gall*, 11,234; Wallenstadt, 2,102.
Schaffhausen	116	35,278	304.1	*Schaffhausen*, 7,710; Neukirchen.
Schwyz	339	44,159	130.2	*Schwyz*, 2,414.
Solothurn	263	69,613	264.6	*Solothurn* or Soleure, 5,370.
Tessin	1,034	117,397	113.6	*Bellinzona*, 1,926; Lugana, 4,682; Locarno, 1,863.
Thurgau	272	88,819	326.5	*Frauenfeld*, 3,544.
Unterwalden, Upper	266	13,798	94.4	*Sarnen*, 1,299; Engelberg, 1,916.
Unterwalden, Lower		11,337		*Stanz*, 1,877.
Uri	422	14,500	34.3	*Altorf*, 2,112.
Valais	1,663	81,527	49.0	*Sitten* or Sion, 3,516; Martigny, 2,457; Borleg, 812.
Vaud	1,182	199,453	168.7	*Lausanne*, 19,542; Vevay, 5,260; Yverdun, 3,797; Chillon.
Zug	85	17,456	205.3	*Zug*, 3,302; Morgarten.
Zurich	687	250,134	364.6	*Zurich*, 17,040; Winterthur, 4,710; Ober-Winterthur, 2,113.
Total	15,272	2,390,116	156.6	

—including travelers and political refugees, the total population amounted to 2,392,740; and of this number 2,161,590 were born in the cantons in which they are resident, and 157,380 in other cantons—the remainder being foreigners and persons of unknown origin; and in an ethnological point of view 1,680,896 were German, 540,072 French, 129,333 Italian, and 42,439 Roumain, the last resident in the Grisons.

3. The natural features of Switzerland are everywhere on the grandest scale—lofty mountains, enormous glaciers, magnificent lakes, and wild romantic valleys successively appear, and furnish scenery which, if equaled, is not surpassed by that of any other country. The loftiest chains belong to the Alps, and are situated chiefly in the south.



DOGS OF ST. BERNARD.

4. The central nucleus is Mont St. Gothard, on the confines of Uri, Tessin, and Valais. This remarkable mass, nearly equidistant from the equator and the pole, unites the principal watersheds of Europe, and sends its waters into four large basins—north by the Rhine to the German Ocean, southwest by the Rhone to the Mediterranean, southeast by the Po to the Adriatic, and east by the Danube to the Black Sea. In like manner it forms a kind of starting-point for the loftiest ranges of the Alps. It belongs itself to the Helvetian or Lepontine range, which stretches east from it to Mont St. Bernardin and southwest to Mont Rosa, from which it is continued west, under the name of the Pennine Alps, to the culminating point of Europe in Mont Blanc, beyond the Swiss frontier in Savoy. From Mont St. Bernardin the main range of the Alps, belonging to what is called the Rhœtian branch, stretches first east and then northeast across the Grisons into the Tyrol.

5. To the north of these ranges, and nearly parallel to them, two other ranges, setting out as before, proceed—the one southwest, between Bern and Valais, and the other northeast, along the north frontier of the Grisons and through Uri, Schwyz, Glarus, and St. Gall. These ranges, though possessed of many lofty summits, are much less elevated than the southern ranges. They throw out numerous ramifications toward the north, but in that direction subside so rapidly that the country almost loses its Alpine character, and becomes rather hilly than mountainous.

6. Besides the Alps, properly so called, the only other range deserving of notice is that of the Jura, which is linked to the Alps by the Jorat, a small range which stretches west and northwest across the Pays-de-Vaud, and extends along the west side of Geneva, Vaud, and Neufchâtel.

7. The whole drainage, as before intimated, is divided along the basins of the German Ocean, the Adriatic, the Mediterranean, and the Black Sea. The proportions received by each are in the order now stated, but the far greater share belongs to the first. The Rhone and the Rhine both have their sources in the glaciers of Switzerland, and the Danube and Po are indebted to it for important feeders; but owing to the mountainous nature and inland position of the country, none of the rivers acquire so much development within its limits as to become of great navigable importance.

8. The Rhine, formed in the Grisons by the junction of the Vorder and Hinter Rhine, flows north into the Lake of Constance, and on emerging therefrom flows west to Schaffhausen, where it forms the celebrated falls of that name, below which its navigation properly begins. Its principal affluents in Switzerland are the Thur, Töss, Birs, and Aar, which all join it on the left. The Rhone, rising in the glacier of St. Gothard, on the northeast confines of Valais, receives all the drainage of that canton, flowing through it centrally till it falls into the Lake of Geneva. Immediately after issuing from the lake at the town of Geneva, it receives the Arve, and about 10 miles below quits the Swiss frontier.



FALLS OF THE RHINE.

9. The waters which the Po receives from Switzerland are carried to it by the Tessin, which drains the canton of the same name, and those which the Danube receives are carried to it by the Inn, which rises and has a considerable part of its upper course in the east of the Grisons.

10. The lakes of Switzerland are more numerous than in any other part of Europe, and both from their individual magnitude and the lofty mountains among which they are embosomed, often give to the scenery its peculiar magnificence. Those of Geneva in the southwest, and of Constance in the northeast, the two largest of the whole, as well as that of Maggiore on the south side of the Alps, are shared in a greater or less degree by other countries; but within the limits of Switzerland, and not far from its center, often at short distances from each other, though usually separated by mountain ranges, others stretch across the country from west-southwest to east-northeast. Tracing them in this direction are found successively those of Neufchâtel, with Morat and Bienne in its vicinity, Thun, with its feeder Brienz, Luzern or Vierwaldstätter-see, Sempach, Baldegg, Zug, Zurich, and Wallenstätter-see. All these internal lakes, owing to the superior elevation of the southern ranges, which give them no outlet in that direction, discharge themselves by streams which flow north, and consequently belong to the basin of the Rhine.

11. The loftiest ranges of the Alps have a granitic basis, on which gneiss and mica-slate recline. These rocks are particularly developed in St. Bernard, St. Gothard, the Faulhorn, etc., and contain a great number of beautiful minerals, particularly garnets and various kinds of rock-crystals. Sienite is not of frequent occurrence, but is found on the north side of St. Gothard and on the Finster-Aarhorn. Diallage rock, or gabbro, is seen exposed in deep precipices near Saaz, in the upper part of Valais, and forms whole mountains in various parts of the Grisons. In the same locality serpentine is largely developed. Granular limestone is very widely diffused throughout the Alps, usually resting on mica-slate, and alternating with clay-slate and primitive gypsum. Mountain limestone composes the great masses of the Dent-du-Midi, the Diablerets, the Wetterhorn, Dodi, etc., and is also seen in considerable quantities on the east shore of the Lake of Geneva.

12. The proper carboniferous rocks are very sparingly developed; but regular coal-bearing strata are found in the Simmenthal, the Kanderthal, and on the south shore of Lake Thun. In the Jura, limestone, equivalent to the oolite, often resting on muschelkalk, is so largely developed that the name of Jura limestone is now often applied to the whole oolite formation. Above the Jura limestone is the molasse, a soft, green sandstone belonging to the lower series of the tertiary formation, and covering an extensive area in the lower parts of Switzerland.

13. None of the rocks are rich in metals. As in almost all mountain countries, particles of gold are found in the sands of many of the rivers, and more especially in those of the Rhine, the Reuss, the Emmen, and the Luttern. Lead and copper, both argentiferous, are found in the Grisons. Iron is more widely diffused, particularly in the strata connected with the Jura limestone; rock-salt in Vaud, and saline springs occur in many places; and among other minerals deserving mention are alabaster and marble, widely diffused, sulphur near Lake Thun, gypsum particularly in Fribourg, and asphaltum in the Val-de-Travers, in Valais.

14. The great diversities of climate observed in Switzerland are caused, not so much by differences of latitude, but of elevation. Hence, while winter is reigning in all its rigor on the lofty summits and slopes, the lower valleys are experiencing a far advanced spring—not only south in the valleys of Tessin, where a truly Italian climate is enjoyed, but also north, in the plains of Bâsel. The same causes which thus diversify the climate, tend also to make it extremely variable even in the same localities, and hence days of almost insupportable heat are not unfrequently preceded by cool mornings, and succeeded by equally cold evenings. These sudden changes are very trying to weak constitutions; but with the exception of a few swampy spots, from which deleterious miasms are diffused, the air is clear and bracing, and eminently favorable to health and longevity.

15. Few countries of Europe, even of larger extent, have a more varied vegetation, and in this relation it has been divided into seven zones. The characteristic vegetation of the first is the vine, which flourishes up to 1,700 to 1,800 feet above the sea. The next in ascent is the hilly or lower mountain region, which rises to the height of 2,800 feet, and is characterized by the luxuriance of its walnut trees. Though not well adapted to wheat, it raises good crops of spelt, and has excellent meadows. The third, or upper mountain region, has its limit at 4,100 feet; its principal product is forest timber, consisting of all varieties of hardwood, but more especially beech; and the walnut grows in it, although not vigorously, up to 3,500 feet; and good crops of barley and oats are obtained. The pastures, too, are excellent. Above this, and up to the height of 5,300 feet, is occupied by the fourth or sub-Alpine region, distinguished by its pine forests. Here winter lasts from eight to nine months; no regular crops are grown, but many of the heights are covered with a rich grassy sward.

16. The next two regions are sometimes included under the common name of Alpine, though it evidently admits of two distinct divisions—the one, lower Alpine, terminating at 6,500 feet, and the other, upper Alpine, ascending to the limit of perpetual snow. The first is the proper region of Alpine pastures—the latter as it ascends becomes more and more stunted in its vegetation, and the seasons are lost in a long, dreary winter, and short summer of five or six weeks. In the lower part of these regions some trees are occasionally seen, but many of the valleys are filled with enormous glaciers, and in many spots and ravines which the sun can not reach, the snow never entirely melts. The seventh, and last, is that of perpetual snow.



LA MER DE GLACE, SWITZERLAND.

17. Many parts even of the lower regions of Switzerland are of a stony, sterile nature, but on every side the effects of persevering industry are apparent, and no spot that can be turned to good account is left unoccupied. Still, so unfavorable is the soil and climate, that on dividing the whole area of the country into three parts, it will be found that only one of these raises grain sufficient for its own consumption; the second raises not more than an eight, and the third barely a six months' supply. The deficiency is made up partly by importation and partly by the general cultivation of potatoes; while in the more mountainous districts dairy produce forms the chief element of subsistence.

18. Among the wild animals of the country are bears and wolves, found both in the Alps and Jura; the chamois, chiefly among the loftiest summits of the Alps; wild boars, stags, foxes, badgers, hares, otters, birds of prey of large dimensions, and many varieties of winged game. The lakes and rivers are abundantly supplied with fish.



THE CHAMOIS.

19. The best cultivated cantons are Bâsel, Aargau, Thurgau, Vaud, and Geneva. The principal grains cultivated in the flatter districts are spelt, wheat, rye, barley, and corn, and in the higher, summer barley and oats. Hemp and flax are extensively grown; also tobacco, poppy, and caraway, and in some of the cantons occasional patches of saffron are seen. Fruit is produced in abundance—in the north apples, pears, plums, and cherries, and in the south, where sheltered, apricots, peaches, almonds, and figs thrive well in the open air. The more delicate fruits, as oranges, citrons, lemons, and pomegranates, are confined to the south of the Alps. There, too, the olive thrives, and a good deal of silk is obtained from the cultivation of the mulberry-tree.

20. Among domestic animals, the first place belongs to the horned cattle, which are remarkable both for numbers and the superiority of their breeds. Horses attract less attention, and both mules and asses are inferior. Sheep are very much confined to the lower districts; and on the higher grounds, where stock can not well be reared, goats are very numerous. The products of the dairy are immense, and constitute an important element of the national wealth.



SWISS MOWER.

21. The Swiss have many manufactures, but the factory system is little known, and the far greater part of the staples are produced at home, chiefly in the winter and in the evenings, when the ordinary field labors have ceased. In the towns, however, there are considerable establishments: in Zurich and Bâsel for the manufacture of silk goods; in Zurich, St. Gall, and Appenzell for cotton tissues; in Aargau, St. Gall, and Thurgau for linen and hempen cloth; in Geneva, Vaud, Neufchâtel, and Bern for jewelry and watches; in Schaffhausen for hardware and cutlery; in Bâsel for paper; and in various places for leather, straw hats, musical and mathematical instruments, etc.

22. These staples of manufactures and agriculture, and what little produce the mines afford, furnish materials of a considerable export trade, and in addition to this ordinary trade, Switzerland shares in the very important transit which is carried on between France, Germany, and Italy. The nature of the country, indeed, throws very extraordinary difficulties in the way of this traffic, but the means which have been employed to lessen or remove them are almost as extraordinary as the difficulties, and the great roads which now lead across some of the loftiest passes of the Alps will ever be pointed to as among the most remarkable of engineering achievements. Nor have the ordinary communications of the interior been neglected; in almost every canton the roads are both well made and carefully kept, and though the impetuosity of the rivers greatly limits their navigable importance, and leaves little scope for the construction of extensive canals, many hydraulic works have been executed on a large scale. Among others may be mentioned the two canals of the Linth—one connecting it with the Wallenstätter-see, and the other connecting it through that lake with the Lake of Zurich. Both France and Germany are connected with Switzerland by railroad.

23. The cantons of Switzerland are united together as a federal republic, but each canton retains individual independence in all that belongs to internal administration. By the constitution of 12th September, 1848, the federal assembly is composed of two divisions—the "Nationalrath" or national council, formed of deputies of the people in the ratio of one for every 20,000, and elected triennially, and—the "Staenderath" or council of state, consisting of two members from each canton. The "Bundesrath" or federal council is executive in its attributes, and consists of seven members elected for three years, by the federal assembly, from among the Swiss citizens eligible for the national council; its president and vice-president are elected annually from its own members; and each member is charged with one of the seven departments of government. The Confederation thus represented has the sole power to declare war, make peace, and to conclude treaties and alliances, and alone is charged with the official relations between the cantons and with foreign governments. The federal tribunal consists of eleven members, nominated by the federal assembly for three years. This tribunal adjudicates in civil cases between the cantons, or between them and the Confederation; also between the Confederation or cantons on the one part, and individuals on the other. For cases of discipline it divides into sections, to constitute the chamber of accusation, the jury, and the court of cassation.

24. The federal force is formed—1st, of the regular army, composed of men between 20 and 34 years of age, in the ratio of 3 per centum of the population; 2d, of the reserve, consisting of those between 34 and 40 years of age, who have served in the regular army, in the ratio of 1½ per centum of the population; and, 3d, of the militia, which comprehends all men in the state under 45 years of age who have served neither in the regular army nor reserve. According to the returns of 1851 the regular army numbered 72,000, and the reserve 36,000 men.

25. According to the budget for 1856 the receipts into the federal treasury were estimated at 16,250,000 francs, and the expenditures at 15,760,000 francs. The public debt on the 31st December amounted to 10,131.516 francs. The cantons have separate treasuries administered by their own officials.

26. The only forms of religion generally professed are the Protestant Presbyterian, as modeled by Calvin and Zuinglius, and the Roman Catholic. The former is embraced by 1,417,754 of the population, and the latter by 971,840. There are also 3,146 Jews. The cantons in which the Protestants form the majority are—Zurich, Bern, Glarus, Bâsel, Schaffhausen, Outer Appenzell, Grisons, Aargau, Thurgau, Vaud, Neufchâtel, and Geneva; in the other cantons the Roman Catholics outnumber the Protestants, and Luzern, Uri, Schwyz, the two Unterwalden, Zug, Inner Appenzell, Tessin, and Valais are almost wholly Catholic. The Roman Catholics are under the charge of the bishops of Bâsel, Coire, St. Gall, Lausanne, and Sion.

27. Public education is unequally but very widely diffused throughout Switzerland, and in every district there are primary schools in which the elements of a common education may be attained, and secondary schools for youths from 12 to 15 years of age. In many of the cantons it is made obligatory for parents to send their children to school. In both these schools the rich and the poor are taught together, the latter being admitted gratuitously. Normal schools are established in each canton; and there are various superior schools in all the chief towns. Bâsel has a university which was formerly much frequented, and since 1832 universities have been established at Bern and Zurich. In the towns there are good libraries and numerous literary associations; and almost every place of note has one or more newspapers, besides magazines, etc. In all these matters, however, there is great diversity in the cantons, as each, as an independent state or states, has the direction of its own institutions.

28. Bern, the federal capital, is situate on a small peninsula formed by the Aar, and in latitude 46° 57′ 6″ north, and longitude 7° 26′ 34″ east. It is one of the finest towns in Switzerland, is entirely built of freestone, and is remarkable for its arcades and fountains. It has a Gothic cathedral, a university, an observatory, a public library with an extensive collection of books and manuscripts on Swiss history, an arsenal, a mint, and many literary, scientific, and charitable institutions. Its chief industry consists in the manufacture of gunpowder, fire-arms, and mathematical instruments, straw hats, paper, and leather. In these it has a considerable trade.

29. Bâsel, on both sides of the Rhine, is a walled city and has many fine buildings, among which are the cathedral, a public library of 50,000 volumes, with many important manuscripts, paintings, and antiquities, a university with 24 professors, a normal school, a gymnasium with 12 professors, a polytechnic school, an agricultural school, a theological institution, and the Erasmus college. The library of the theological institution contains 20,000 volumes; and a special library attached to the botanical garden is said to be the richest of the kind in Europe. As a commercial and manufacturing town, Bâsel is the most important in Switzerland; this is partly to be attributed to its position on the frontiers of France and Germany, a



CITY OF BASEL.

few miles below the spot where the Rhine becomes navigable, and at the termination of the French and German railroads on either side of the river, which naturally renders it the entrepôt of the commerce of Switzerland with Germany, France, and the Low Countries. Its ribbon manufactures are extensive, and it also produces paper, silk, gloves, leather, jewelry, printed cottons, and hosiery-ware.

30. Geneva is situate at the western extremity of the lake of the same name where it narrows almost to a point, and pours out the Rhone, here crossed by several bridges, and dividing the town into two portions. The environs are covered with handsome villas, and the town itself, approached by land or water, has a very imposing appearance. It is surrounded by walls flanked with bastions, and is entered on the land side by three gates. The lower or old town is the seat of trade, irregularly built, and has dark, narrow, and dirty streets. The upper town, appropriated to the residences of the burgher aristocracy, contains a number of well-built houses and fine hotels. The public buildings are neither numerous nor individually possessed of much interest—the more important are the Cathedral, the Town Hall, the Arsenal, the Public Library with 60,000 volumes and 500 manuscripts, the Museum of natural history, the Botanic Garden, the Observatory, etc. The only important manufacture of Geneva is that of watches, musical boxes, and jewelry. Trade is very much restricted by the narrow limits of the Genevese territory, and the jealous watch the French and Sardinian governments keep along its frontiers. There is also a want of a proper navigable outlet, the navigation of the Rhone below Geneva being very much obstructed. Its chief trade, in addition to that furnished by its staple manufacture, consists in supplying the surrounding districts with foreign products and merchandise. In literature and science Geneva has long occupied an exalted place; and education, too, is very generally diffused, and the people distinguished for intelligence. Among the educational institutions is the college founded by Calvin, the academy which has four faculties, and numerous primary and other schools. The benevolent institutions include the general hospital and orphan and other asylums.

31. Lausanne, half a mile from Ouchy, its port, on the north shore of the Lake of Geneva, stands on elevated ground, and has narrow and ill-regulated streets, but some good edifices, including the finest cathedral in Switzerland, a massive castle, a cantonal hospital, lunatic asylum, penitentiary, barracks, and theater. Its educational institutions comprise an academy with 14 professors, a college, several professional schools, numerous literary and scientific

societies, and collections of art and antiquities, etc. Manufactures of woolen cloths, leather, paper, and jewelry are carried on extensively, and it has also a considerable trade.

32. Zurich is situated on the Limmat, at its exit from the northwest extremity of the Lake of Zurich, and is divided by the river into two parts, which communicate by three bridges. It is surrounded by old walls, and has an arsenal, with a fine collection of armory. The principal public buildings are the Cathedral, the Town House, Orphan Asylum, and the Tower of Waltenberg. It has also a university, a cantonal college, and several professional schools; a public library of 48,000 volumes, a botanic garden, and many scientific and literary societies. Its manufactures of silk, cotton, and ribbons are important, and it is also engaged in dyeing and tanning.

33. St. Gall, in a narrow valley on the Steinach, is an old town, surrounded by walls and a ditch, now forming public gardens. It contains the ruins of a magnificent abbey founded in the seventh century and an important seat of learning in the dark ages, and several other handsome ecclesiastical buildings, schools, etc., and has flourishing manufactures of muslins and cotton yarn, with a considerable trade with the eastern cantons.

34. Luzern, on the Reuss, where it issues from the western extremity of the Lake of Luzern, is a highly picturesque city, inclosed by a wall and watch-towers, and is well built. It has a fine cathedral and other churches, several convents, an arsenal, two hospitals, an orphan asylum, jail, etc., and several covered bridges adorned with ancient paintings. Its lyceum has 14 professors. Its manufactures consist of silk and cotton fabrics and carriages, and it has one of the largest weekly corn markets in Switzerland.



TOWN OF LUZERN.

35. Fribourg, on the Sarine, consists of the upper or French town, and the lower or German town, on the brink of the river, here crossed by four bridges. Fribourg has many quaint old houses, a cathedral with a spire 275 feet elevation, a college, town-hall, and several schools, asylums, and literary institutions. Its manufactures are woolen cloths, straw hats, hardware, porcelain, and leather, and it has also an annual cattle market.

36. Besides these, and others noted in the general table, Switzerland has numerous other considerable towns, some noted for manufactures and the arts, and some for their literary institutions, while others are remarkable on account of their historical reminiscences.

37. The Swiss became known to history about 105 B. C., when the Tigurini, in alliance with the Cimbri, defeated a Roman army. About 50 years after, under the name of Helvetii, they attempted to migrate into Gaul, but were driven back by Julius Cæsar, and from this time commenced their subjection to the Romans, which was completed about 70 A. D.

38. Near the beginning of the fifth century the northern hordes burst in and formed permanent settlements—the Alemanni making themselves masters of the north and the Burgundians of the southwest, while at a later period the Goths gained possession of the southeast. All these nations were ultimately subdued by the Franks.

39. On the death of Charlemagne, Helvetia was divided into two portions—an east or German, which fell to Louis of Bavaria, and was incorporated with the duchy of Swabia, and a west or Burgundian, allotted to Lotharius, who held the title of Emperor and King of Italy. This latter portion was afterward incorporated with the kingdom of Upper Burgundy, and ultimately came into the possession of Henry II., Emperor of Germany, who now found himself master of the whole country. As the emperors could not govern in person, they appointed kastvogts or wardens, whose office appears to have become hereditary.

40. In the beginning of the thirteenth century the country was divided into a number of lordships, free cantons, and imperial towns. Among the lordships that of Hapsburg, by a series of fortunate events, gradually attained such pre-eminence that, in 1273, Rudolph, one of its members, was elected Emperor of Germany, and became founder of the house of Austria. Availing himself of his new powers, Rudolph now attempted the subjugation of all Helvetia, but was strenuously resisted, especially by the free cantons of Schwyz, Uri, and Unterwalden.

41. The same policy was pursued by Albert, his son and successor, until open resistance was resolved upon, and in 1307 a few peasants met secretly on the Rütli and bound themselves by oath to achieve the independence of their country or perish in the attempt. The struggle that ensued forms the brightest page in Swiss history. The great victory of Morgarten, in 1315, led to the establishment of the federal pact between the three cantons, and formed the nucleus of the Confederation. Other cantons gave in their adherence, and the number already amounted to eight when a second great victory at Sempach, in 1386, so humbled Austria that she shortly after concluded a twenty years' truce, and not long after the greater part of the remaining possessions of Austria in Switzerland were wrested from her.

42. In 1475 a formidable enemy appeared in Charles the Rash, Duke of Burgundy, but not more successful than Austria: the victory of Morat, in 1476, almost annihilated his forces. Peace and prosperity now reigned in the country, and in this interval the Swiss were enabled to prepare themselves for the last great effort which was made against their independence from the side of Germany. In 1493 Maximilian, the emperor, called upon the Swiss to furnish a contingent of troops, and on their refusal declared war against them. A succession of defeats left him no inclination to continue it, and a year had scarcely elapsed before peace was concluded.

43. Subsequent to the troubles connected with the Reformation, in which Switzerland acted so distinguished a part, no events of much interest occurred until 1793, when the French revolutionists commenced their aggressions by seizing the territory of Basel, and ultimately, but not without a fearful struggle, Switzerland was degraded into a kind of French protectorate, 19 cantons retaining a nominal independence, while three, Geneva, Neufchâtel, and the Valais, were formally extinguished, by being incorporated with France. The overthrow of Napoleon made Switzerland again free, and the Confederation was re-established, and formally recognized and guaranteed by the Congress of Vienna in 1815.

44. At this period the constitution of the several cantons presented numerous varieties; but the general tendency since has been to give a complete ascendency to the democratic principle, and to introduce universal suffrage, and in 1848 the federal constitution was essentially modified.

[*Weights, Measures, and Moneys.*—Each canton had formerly its own standards. In 1835 a system of weights and measures based on the French metrical values was adopted, and in 1850 the Swiss franc was made to conform to that of France. The weights and measures are as follows:

WEIGHTS.—The pfund (lb.) divided decimally = 500 grammes or 1.10243 lb. avoirdupois, and 100 lb. = 1 centner.

MEASURES.—The "elle" = 600 millimetres or 0.65618 yard, and 8,000 elles = 1 stunde or mile. The saum = 150 litres or 39.62856 gallons; and the malter = 1,500 litres or 42.56860 bushels.

MONEYS.—Accounts are stated in francs of 100 centimes or rappens. No gold is coined. Before 1850 the relation between the Swiss and French franc stood thus—100 Swiss = 147 French, and 100 French = 68 Swiss nearly.]

ITALY AND ITALIAN STATES.



ASCENT OF MONT BLANC.

1. ITALY is an extensive country, consisting of numerous states, situated between latitudes 36° 30′ and 47° 5′ north, and longitudes 6° 20′ and 13° 40′ east from Greenwich; and is bounded on the north by Switzerland and the Austrian states, on the east by the Adriatic Sea, on the southeast by the Ionian Sea, on the south and southwest by the Mediterranean Sea, and on the west by the French territory. Its greatest length in a northwest and southeast direction is nearly 700 miles, and the width varies from 100 to 320 miles. The area may be estimated at 120,000 square miles.

2. Natural boundaries demark Italy as a distinct geographical region. The northern limit is formed by the stupendous chain of the Alps, and its waters belong entirely to the basin of the Mediterranean. It consists partly of islands and partly of mainland. The principal islands are—Sicily, with its Lipari and Egades groups, Elba, and Sardinia, and also, though politically dissevered, Corsica. Malta and its dependencies likewise rank as Italian islands. The continental portion is naturally divided into a northern portion, including the vast basin of the Po—a prolongation of that of the Adriatic, and a central and southern portion, or the peninsula, which in general is mountainous or hilly, being traversed by the Apennines, between the ramifications of which considerable plains, nearly level, extend to and along its shores.

3. Political Italy, as contradistinguished from geographical Italy, comprises the following states, etc.:

States, etc.	Absolute. Area, sq. m.	Absolute. Population.	Relative. Area.	Relative. Population.	Popula. to sq. m.	Capitals, etc.	Popula.
Lombardo-Venetian Kingdom	17,552	5,503,473	.146986	.213947	313.8	Milano	189,380
Kingdom of Sardinia	29,165	5,090,245	.244239	.197883	174.5	Torino	143,157
Principality of Monaco	58	8,200	.000486	.000319	141.3	Monaco	1,200
Duchy of Parma	2,401	508,784	.020106	.019770	211.5	Parma	40,995
Duchy of Modena	2,336	600,676	.019562	.023351	257.1	Modena	28,810
Grand Duchy of Tuscany	8,553	1,817,466	.071627	.070657	212.5	Firenze	115,675
Papal States	15,903	3,006,771	.133177	.116889	189.1	Roma	177,461
Regency of San Marino	24	7,750	.000201	.000301	322.9	San Marino	1,250
Kingdom of the Two Sicilies	43,201	9,051,747	.361781	.351883	209.5	Napoli	417,824
Malta, Gozo, etc.	219	128,361	.001834	.004999	586.1	Valletta	59,822
Total	119,412	25,723,473	1.———	1.———	215.4		

The French island of Corsica and the Swiss canton of Tessin, a part of Valais and of the Grisons and the Tyrol, belong to geographical Italy; while Savoy (Sardinia) is embraced in political Italy.

4. The configuration of continental Italy, as portrayed on the map, bears a strong resemblance to that of a boot; the widest part, in the north, representing the mouth, the central portion the leg, and the south portion the foot. So exact is the resemblance, that even the spur of the boot has its representative in the projection occupied chiefly by Monte Angelo, while the heel is seen in the peninsula which is interposed between the Adriatic and the Gulf of Taranto.

5. The coast has a development vaguely estimated at 2,200 miles. It is not much broken. The whole shore of the Adriatic presents a comparatively smooth and continuous line, interrupted only by the spur already referred to, which, by its south side, contributes to form the Gulf of Manfredonia. The largest gulf of all is that of Taranto, in the south. The west coast, though much more indented than the east, is more remarkable for the number and beauty than for the magnitude of its bays; and of these the most important are the bays of St. Eufemia, Policastro, Salerno, Naples, Gaeta, and Genoa. The east shore again is generally flat, presenting in its north part a long series of sandy islands and lagoons, which, by damming up the mouths of the rivers, retard their flow and occasion the formation of pestilential marshes. On the west coast the same thing is occasionally observed, but occurs on a large scale only in the Papal States, where the Pontine marshes convert extensive tracts of great natural fertility into almost uninhabitable deserts. But with this exception, the west coast is considerably elevated, the ramifications of the mountains often stretching down and terminating in lofty cliffs, with a magnificent background of Alpine heights.

6. The interior is finely diversified. The loftiest mountains of the Alps stand on its frontier and shelter it from the rigors of the north, giving it a climate unrivaled for general mildness and serenity. In immediate connection with the maritime Alps is the chain of the Apennines, which, first proceeding east till the Adriatic is approached, turn south and traverse the peninsula centrally through its whole length to the Straits of Messina, while numerous branches are thrown off laterally and form an endless succession either of loftier hills clothed with forests, or gentler slopes covered with olives and vines. In the spaces between the mountains and hills lie valleys remarkable either for their wild romantic beauties or the fertility of their soils. In the north, between the Alps and the Apennines, is a plain of vast extent, stretching from the west frontiers of Piedmont across Lombardy to the shores of the Adriatic. This plain, though not the largest, is unquestionably the most fertile in Europe. Other plains, not of equal fertility, but still more attractive by their beauty, occur in various parts of the Italian peninsula.

7. The Po is the only river of magnitude of which Italy can boast, and pursuing its course between the Alps and the Apennines derives its supplies from both of them. It debouches by several mouths into the Adriatic. Another river of some importance, which has its mouth at no great distance from the former, and is partly fed in the same way, is the Etsch or Adige. The peninsula of Italy, narrow in itself, and of which the central chain of the Apennines is the watershed, has no room for the formation of large rivers. If the streams descend directly from the mountains to the seas, their course is necessarily so short as to give the character of mere torrents, often rising suddenly in their beds, and again as suddenly retiring within them. It sometimes happens, however, that the mountains in ramifying form parallel ridges, and thus give rise to longitudinal valleys, by pursuing which the course of the rivers is greatly lengthened and their volume consequently augmented. In this way the Italian peninsula, notwithstanding its narrowness, has obtained the Arno, the Tiber, and the Volturno.

8. Numerous lakes are scattered over the surface. Many of them, independent of their natural beauties, derive much adventitious interest from classical associations. The most important are the lakes Maggiore, Como, and Garda.

9. The excellence of the climate and general fertility of the soil have already been referred to. Were the advantages thus liberally bestowed by nature duly appreciated and improved, no country in Europe would surpass Italy in the number and value of its products. Though much of its surface is occupied by mountains, there are few even of the loftiest of those in the interior on which the finest timber will not attain maturity. The oak flourishes at the height of 3,500 feet, and the walnut and chestnut at that of 2,500 feet. At lower elevations the hills and sunny slopes become clothed with vines and olive-trees; while the mulberry,



COCOONERY AND MULBERRY PLANTATION.

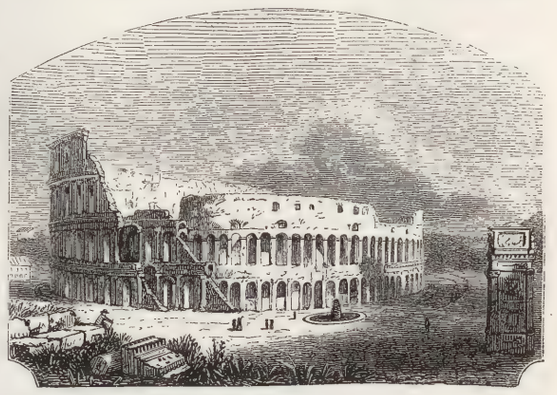
growing with unwonted luxuriance, furnishes the means of obtaining almost unlimited supplies of the finest silk. Fruits, too, in endless variety, and of the most exquisite quality, are abundant in every quarter, and in some spots even the sugar-cane and cotton-plant thrive well.

10. Among the properly agricultural crops, not only are all the ordinary cereals included, but maize and rice are successfully cultivated. Meadows and pastures also, more especially in the plain of the Po, where, from the frequency of inundation, other crops are uncertain, have from almost time immemorial been employed in feeding vast herds of cattle. It must be admitted, however, that the natural advantages of the country are not turned to full account, and that Italy, in agriculture as well as general industry, is still in the background.

11. Speaking generally, nothing can surpass the beauty and the diversity of the scenery of Italy. Its mountains have every diversity of form and elevation: alternately smooth and rugged. They exhibit by turns gentle declivities and fine pastures, tremendous precipices and chasms; waterfalls; deep and majestic forests, and summits sometimes capped with snow and sometimes emitting smoke and flames. Many of the valleys, as that of the Arno, are delightful beyond description; the plains of Lombardy are not less beautiful than rich, and even the half-desert tracts along the west shore interest by their solitude and their vastness. The extent of the sea-coast and the number and magnitude of the lakes add also greatly to the beauty and variety of the landscape; while the clearness of the atmosphere gives to every object a brightness of coloring and distinctness of outline that can with difficulty be conceived by those accustomed to cloudy and less brilliant skies. These beauties were the theme of the ancients, and have inspired the muse of all times.

12. The Italians are a mixed race, composed of Greeks, Gauls, Germans, and many others who have migrated to the peninsula at various times and intermingled with the aborigines, whose language they have superseded. They have long been divided into separate tribes, with separate social and political interests, speaking dialects so different that the inhabitants of one province can scarcely, if at all, understand the tongue of another. From these dialects, however, has been framed a speech which by cultivation has attained a peculiar character and become a common bond of union. Its basis is the Latin: it is mellifluous and soft—a language of poetry, and that in which Danté, Petrarch, Tasso, and Ariosto have clothed their immortal thoughts.

13. No other country is so rich in monuments of antiquity and of the middle ages. Among the splendid relics of ancient grandeur are the Coliseum and Pantheon; the triumphal arches of Vespasian, Severus, and Constantine; the pillars of Trajan and Antonine; the Cloacæ, etc., at Rome; the amphitheaters of Verona and Pola; the catacombs of Naples; the ruins of the temples of Posidonia or Pæstum, simple, austere, massive, and of unknown antiquity; and above all, the subterranean remains of Herculaneum and Pompeii. Almost every town, indeed, possesses some memorial of ancient days, and there is scarcely a place or stream that is not imperishably associated with some circumstance of importance in history.



COLISEUM.

AUSTRIAN ITALY.

14. Austrian Italy, consisting of the provinces of Lombardy and Venice, is situated between latitudes 44° 54′ and 46° 37′ north, and longitudes 8° 32′ and 13° 40′ east; and forms the northeast portion of Italy, having the Papal States, Modena, Parma, and Piedmont on the south and west. Its area is estimated at 17,547 square miles.

15. The surface is a vast plain, lying chiefly along the north bank, and in some places below the level of the Po, and ascending northward more or less gradually till it becomes mountainous, and is terminated in the lofty ranges of the Alps. The northern portion is distinguished by the magnificence of its scenery. The west and south belong to the basin of the Po, which receives the Ticino (draining Lake Maggiore), the Lambro, the Adda (the outlet of Lake Como), the Oglio (of Lake Iseo), and the Mincio, which carries off the waters of Lake Garda. The eastern part is shared by several independent basins, of which the most important is the Adige, and after it the Bacchiglione, Brenta, Piave, and Tagliamento. All the principal rivers have their mouths on the north shores of the Adriatic.



ALPINE SCENERY.

16. The lakes of Lombardy are the largest in Italy, and being chiefly in the north and west, where the surface is finely diversified, are much celebrated for the beauty of their scenery. In connection with the lakes and rivers an extensive system of canals of irrigation has been established, and about one sixth of the plain is thus supplied with water. Many of the larger canals are also used for navigation; and the entire length of the great canals in Lombardy is little less than 5,000 miles, using up one half of the average discharge of all the rivers.

17. Except in the north, on some of the mountains of which snow lies continually, the climate is remarkable for the uniformity of its temperature. The soils are exceedingly fertile, and aided by the constancy of the climate and the system of irrigation pursued, yield abundantly the cereals and fruits, and the pastures of the plains afford sustenance to vast herds of livestock.

18. The total population of Lombardo-Venetia in 1854 amounted to 5,503,473 souls, of which number 3,009,505 were found in Lombardy, and 2,498,968 in Venice; and hence the density of the population was equivalent to 313.5 to the square mile.

19. These provinces form one of the richest agricultural regions in Europe. The corn, maize, rice, hemp, and flax produced far exceed the home consumption. No country can boast of possessing artificial meadows more skillfully formed or so productive. The dairy produce obtained from the cows fed on them forms one of the principal sources of agricultural wealth.

20. After the ordinary produce of agriculture, and scarcely inferior to it in value, is that of silk, of which vast quantities of the finest quality are annually raised. The vine also thrives everywhere, but the wines manufactured from its fruits do not rank high. The area of the vine-culture in Lombardy, however, is nearly double that in Venice. In like manner the former exceeds the latter in wheat, rye, and oats, and to the extent of a half in forests; while the latter exceeds the former considerably in rice, and to the extent of a half in meadow lands.

21. Mining is here a subsidiary interest, nor are the minerals produced of great importance, although they include iron, copper, porcelain-earth, and a variety of fine pebbles and rock-crystals. The manufactures, seldom conducted on an extensive scale, consist chiefly of silks, velvets, woolens, hats, ironware, pottery, and stained glass; and trade is in a great measure confined to the export of silk, corn, and cheese. The traffic is facilitated by numerous navigable canals, and railroads connect all the principal towns. The principal seats of commerce are Venice, Milan, Brescia, Bergamo, Padua, and Verona. Venice is one of the three great sea-ports of the Austrian dominions.

22. The government is administered by a viceroy, who resides at Milan. In the capital of each province is a court of first instance for civil and criminal business. In Milan and Venice are courts of appeal, and at Verona a high court of appeal for the whole kingdom. Roman Catholicism is the established religion. The church is presided over by the patriarch of Venice and archbishop of Milan, with 18 bishops, and there are in the kingdom 37 monasteries and 34 nunneries, with numerous hospitals and charitable institutions.

23. The chief educational establishments are the universities of Pavia with 58 professors, and of Padua with 46 professors; 12 colleges (liceo), 43 gymnasia, and numerous other schools. Including all descriptions, the whole number of schools are—5,192 in Lombardy, and 2,218 in Venice, attended in the former by 217,253, or two thirds, and in the latter by 89,557, or about one third of those of proper age. The royal imperial institute of Milan has sections at Venice, Padua, and Verona.

24. The country is divided into provinces as follows:

	Provinces.	Area, sq. m.	Capitals.	Popula.
Lombardy.	Bergamo	1,623	Bergamo	31,614
	Brescia	1,312	Brescia	35,551
	Como	1,095	Como	18,192
	Cremona	525	Cremona	28,345
	Lodi-Crema	461	Crema	9,306
	Mantova (*Mantua*)	906	Mantova	30,674
	Milano (*Milan*)	749	Milano	189,380
	Pavia	402	Pavia	28,169
	Sondrio	1,258	Sondrio	5,183
Venice.	Belluno	1,245	Belluno	11,216
	Padova (*Padua*)	816	Padova	54,275
	Rovigo	429	Rovigo	10,171
	Treviso	934	Treviso	22,164
	Udino (*Friuli*)	2,534	Udina	26,710
	Venezia (*Venice*)	1,050	Venezia	126,768
	Verona	1,098	Verona	49,776
	and Vicenza	1,095	and Vicenza	34,512

25. Milano or Milan, the capital of Lombardy, is situate on a wide plain between the Olona and Saveso, in latitude 45° 28′ and longitude 9° 11′—394 feet above the Adriatic. Milan is nearly of circular shape, inclosed on three sides by walls, surrounded by broad ramparts, nearly eight miles in circuit, and entered by ten gates. It is connected with the Ticino and Adda by canals, and with the principal cities by railroads; and is considered one of the most sumptuous cities in Europe. Its cathedral, next to St. Peter's, is the largest and most splendid in Christendom. In all there are 79 churches, most of them richly adorned with sculptures and paintings. Among the other public buildings are the theater Della Scala, the great Hospital with 2,300 beds open to the sick poor of all nations, several colleges, libraries, and museums, and numerous palaces. The literary institutions of Milan are in high repute. Its manufactures are extensive and various, comprising silk, jewelry, etc., and its commerce very considerable; and from its favorable situation it has become the general entrepôt of the trade of northern Italy. In printing and book-selling it rivals Venice, Turin, and Florence.



THE CATHEDRAL, MILAN.

26. Brescia, 50 miles east of Milan, is an active commercial city, with manufactures of arms and silk. Bergamo, 28 miles northeast of Milan, has extensive silk manufactures and considerable trade, and is the seat of a great annual fair. Mantua is situated in the midst of a lake formed by the waters of the Mincio, and is a strong fortress. It is noted as the birthplace of Virgil. Cremona, on the left bank of the Po, is noted for its violins. Pavia, on the east of the Ticino, near its junction with the Po, has great historical celebrity as the ancient capital of the Lombard kings, and as the scene of many important events. It is also the seat of a university. Como, at the foot of the lake of that name, has flourishing manufactures of cloth, silks, and philosophical instruments.

27. Venice, the most remarkable city of the world, is built in the lagoons of Venice, a sort of vast lake, separated from the Adriatic by a long belt of low land, and two miles from the continent, with which it is connected by a stupendous bridge of 222 arches, forming part of the railroad to Padua. Latitude 45° 25′ and longitude 12° 20′. It is the winter residence of the viceroy, and center of the maritime establishment of Austria. Venice, for many centuries the capital of a celebrated republic, the first maritime and commercial power of the world, and one of the finest cities of Europe, is unique both as regards position and construction, being built entirely on piles, and occupying 79 or 80 small islands, separated by 149 canals, which are crossed by 306 bridges. The grand canal, 100 to 180 feet wide, is bordered



CITY OF VENICE.

by magnificent palaces and churches, and separates the city into two nearly equal portions, which are connected by the bridge of the "Rialto," built of white marble, and consisting of a single arch. The streets and lanes are so narrow and intricate, and being fit only for foot-passengers, the place of wheel-carriages is supplied by small barges, called gondolas. The largest street, in which are the best shops, is only 15 feet wide; but the city contains a large number of squares and splendid public gardens. The churches and palaces are magnificent, and adorned with paintings of the first masters. Among the churches, that of St. Mark, with its golden ceiling, pavement of jasper and porphyry, and 500 columns, is the most famous. The chief scientific and literary institutions are the Lyceum, the two royal gymnasia, the Seminary of the Saluta, the Marine College, and School of the Fine Arts. Libraries, museums, and cabinets are numerous and rich. In the middle ages Venice had a monopoly of the manufacture of glass, but this has greatly declined, and its manufactures are now confined to mirrors, jewelry, artificial pearls, silks, and porcelain. Its printing and book-trade are still extensive, and it has still a flourishing external commerce.

28. Padua, situated in the plain 22 miles west of Venice, is a busy commercial city, and the seat of a university. Verona, on both banks of the Adige, is a large commercial city, and is noted for its fine dyeing and its extensive trade in silk thread. It occupies an important military position on one of the principal roads from the Tyrol into Italy, and is strongly fortified. Vicenza, situated in the plain between Verona and Venice, is the seat of extensive silk manufactories and a place of considerable trade. Treviso, 15 miles to the northwest of Venice, has flourishing manufactures of linen and paper and a large trade.

29. The Lombardo-Venetian Kingdom nearly corresponds to the ancient Roman divisions of Gallia-Transpadana and Venetia, but owes its name to a powerful nation of the North which, in the sixth century, overrun the country. It afterward formed part of the empire of Charlemagne, and when it had fallen became the seat of several independent republics. Austria had early gained a footing in the country, and had continued to increase its possessions with so much skill and perseverance that, toward the end of the eighteenth century, its sovereignty nearly extended over the whole. The victories of Napoleon wrested all from its grasp, and led to the establishment, first, of the Cisalpine Republic, and then of the Kingdom of Italy. The Congress of Vienna replaced matters on their ancient footing, and even gave Austria more than she had ever possessed before, and also granted to that power the right of maintaining garrisons in Ferrara and Comacchio in the Papal States.

[*Weights, Measures, and Moneys.*—Since 1803 the French metrical system has been in general use, under the following nomenclature:

Weights.—The "bra nuova" (kilogramme) = 10 once = 100 grossi = 1,000 denari = 10,000 grani; 100 libras = 10 rubbi = 1 centimajo or metrical quintal.

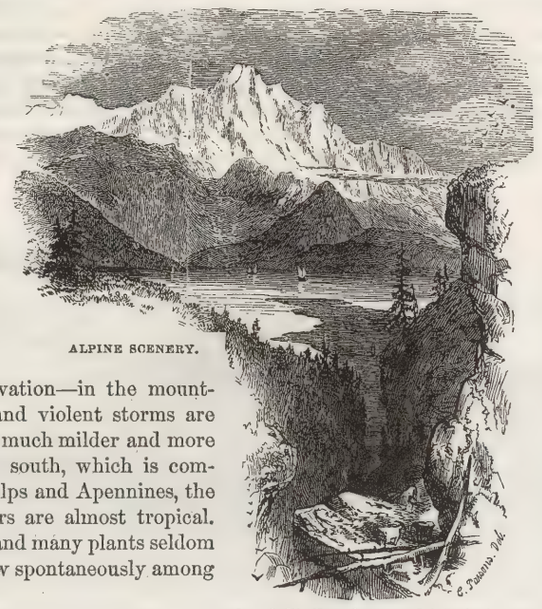
Measures.—The metro (metre) = 10 palmi = 100 diti = 1,000 atomi. The soma (100 litres) = 10 mine = 100 pinte (litres) = 1,000 copi

Moneys.—Accounts are kept in lire of 100 centesime or 20 soldi; 6 lire = 1 scudo or 1 Austrian rix-dollar. Formerly the money of account was the lira Italiana = 1 franc. The coinage is separate from that of German Austria.]

KINGDOM OF SARDINIA.

30. This Kingdom consists of a continental and an insular portion: the first embracing the northwestern section of Italy and the latter the island of Sardinia; and contains an area of 29,165 square miles.

31. The continental portion, which lies between latitudes 43° 38′ and 46° 27′ north, and longitudes 5° 35′ and 10° 5′ east, and has an area of 19,834 square miles, is traversed in various directions by ramifications of the Alps and Apennines. The Alps have their highest summits in Mont Blanc, Monte Rosa, and Mont Cervin—in height respectively 15,712, 15,208, and 14,837 feet. Between these two chains lie extensive and fertile plains. The country is watered by the Rhone, Var, Magra, etc., which flow to the Mediterranean, and by the Po and its affluents, which empty into the Adriatic. Not less than three fourths of the whole surface belong to the basin of the latter river. The climate necessarily varies with locality and elevation—in the mountains the winter cold is extreme, and violent storms are frequent, while in the lower parts a much milder and more genial climate prevails, and in the south, which is completely sheltered by the maritime Alps and Apennines, the winters are open and the summers are almost tropical. Here the orange and olive flourish, and many plants seldom found within the same latitudes grow spontaneously among its rocky and sunny slopes.



ALPINE SCENERY.

32. The island of Sardinia lies in the Mediterranean, south of Sicily, from which it is separated by the Strait of Bonifacio, and between latitudes 38° 42′ and 41° 16′ north, and longitudes 8° 4′ and 9° 51′ east. Area 9,331 square miles. The surface is generally mountainous, and in Monte Schiuschiu, near its center, attains the height of 6,922 feet. On the west are extensive plains—that of Budduso is 3,000 feet above the sea. The Tirsi, the largest river in the island, rises in this plain and flows west; the other rivers, the Selema, Flumendoza, and Mannu, are all small. There are no lakes in the island, but numerous ponds and marshes. The coasts are much indented, and form excellent harbors; and along the shores are many small dependent islands. Drouths occur frequently in summer, and the climate is varying. About one third the surface is barren and stony desert, and the forests occupy a large space. The vine, olive, and mulberry grow to perfection, and the silkworm is extensively raised. Deer, wild boars, and foxes abound, as also hares, rabbits, and martens. The tunny and coral fisheries along the coast are very valuable. The island of Capraja, 22 miles northwest of Elba, belongs also to Sardinia.

33. The total population of the Kingdom amounted in 1852 to 5,090,245 souls, or 174.5 to the square mile. Of this population 4,587,580 or 231.3 to the square mile occupied the mainland portion, and 552,665 or 59.2 to the square mile resided in the islands of Sardinia and Capraja. The annual increase is about 8.8 per 1,000.

34. The industry of the Sardinian states is various, but in most respects is still in a state of development. The extent of arable land is comparatively small, and the cereal produce consequently insufficient. To this remark an exception may be made for Piedmont and the plains of the Po, where irrigation is extensively practiced, and in which the true granary of the country must be sought. In the south and in the island the orange, the vine, and the mulberry, and above all the olive, are the most valuable products. Cattle, sheep, and goats are reared extensively in the mountains, chiefly with a view to dairy produce.

35. Iron and lead are the principal minerals worked, and salt is obtained from both mines and springs. Copper, quicksilver, marble, alabaster, gypsum, chalk, etc., and also precious stones of various kinds are found in abundance. Gold and silver are also enumerated as Sardinian products.

36. Manufactures occupy a very unimportant place compared with agriculture, and consist chiefly of silk stuffs, velvet, and hosiery; woolens, generally of a coarse quality; linens, chiefly for domestic use; hardware, earthenware, glass, etc. The trade between France, Switzerland, Germany, and Italy is very extensive, and an important foreign trade is carried on chiefly through the port of Genoa. The merchant marine in 1855 consisted of 2,934 vessels, measuring 197,924 tons; and in an average of five years the arrivals at all ports numbered 7,488 vessels (845,413 tons), and the departures 7,464 (842,225 tons). The exports in 1855 were valued at 134,355,435 and the imports at 210,467,875 francs, making a total movement of 344,823,310 francs. The aggregate commercial movement by the sea and land boundaries is stated at 543,641,820 francs.

37. Internal trade is much hindered by the want of good roads, but in this respect great improvement has been effected, and on the continental part of the Kingdom there are now several railroads. In 1855 the length of railroad in operation was 547 kilometres.

38. Sardinia is a hereditary monarchy, in which the powers of the sovereign are limited by constitutional safeguards. The legislature, consisting of two chambers, meets annually. Justice is administered by four superior courts, which have their seats at Turin, Genoa, Nice, and Chambéri; provincial courts, one in the capital of each province, and a great number of local and inferior courts. In addition to these a supreme court, the camera regia, sits at Turin, and an admiralty court at Genoa, and commercial courts at various places. The grand divisions of the monarchy are governed by intendants-general, and the provinces by intendants.

39. The total revenue for 1855 amounted to 128,472,824 francs, of which 125,422,824 francs was ordinary revenue; and the total expenditures amounted to 141,374,532 francs, of which 134,293,449 francs was ordinary expenditure. Nearly one half the revenue is derived from import duties and excise, and the greater portion of extraordinary expenditures have been made by the minister of public works. The public debt on the 1st January, 1855, amounted to 615,993,429 francs, on which the annual interest is 32,344,291 francs.

40. The army, including officers, numbers 47,718 men of all arms, but on a war footing can be raised to 140,000. The navy counts 4 sailing and 4 steam frigates, 4 corvettes, 3 brigantines, 1 brig, and 10 steamboats, etc.—in all 40 vessels, carrying 900 guns and 2,860 men.

41. The established religion is the Roman Catholic. The church is governed by the archbishops of Chambéri, Genoa, Turin, and Vercelli on the continent, and by those of Cagliari, Oristano, and Sassari in the island of Sardinia. Other religions are tolerated, and the long-persecuted Waldenses, still numbering 20,000, can not only worship peacefully in their mountain valleys, but rear their churches in the very heart of the capital. The Sardinian Church is entirely independent of the Roman Pontiff, and has recently been essentially reformed in its practices.

42. Sardinia has taken a distinguished part in the cause of general education. The four universities of the state in 1853 comprised over 3,000 students, and the secondary schools, immediately connected with the universities, over 12,000 pupils. Common district schools are established throughout the Kingdom.

43. Sardinia is divided into fourteen administrative divisions, and these into provinces, etc. The divisions and provincial towns are as follows:

	Divisions.	Area, sq. m.	Pop. (1852).	*Capitals* and Provincial Towns.
	Torino (Turin)	2,256	635,670	Torino, 143,157; Pignerolo, 13,501; Suza, 3,274.
	Genova (Genoa)	1,263	568,167	*Genova*, 125,339; Chiavari, 10,619; Novi, 10,278; Levanto, 4,596.
	Savoia (Savoy)	2,524	320,450	*Chambéri*, 15,011; Maurienne, 3,084; Moutiers, 2,336.
	Alessandria	1,582	561,385	*Alessandria*, 38,004; Asti, 21,409; Voghera, 12,001; Tortona, 11,264; Bobbio.
	Cuneo (Coni)	2,719	605,772	*Cuneo*, 18,777; Mondovi, 15,921; Saluzzo, 14,426; Alba, 7,807.
	Novara	2,143	458,091	*Novara*, 11,312; Mortara, 5,316; Valsesia, 5,311; Ossola, 2,297; Pallanza, 2,202.
	Nizza (Nice)	1,623	244,013	*Nizza*, 21,208; San Remo, 9,854; Oneglia, 5,676.
	Anneci	1,767	273,685	*Anneci*, 5,805; Thonon, 4,622; Bonneville, 1,701.
	Ivrea	1,800	250,362	*Ivrea*, 8,475; Aosta, 7,032.
	Savona	1,022	241,711	*Savona*, 16,211; Acqui, 7,261; Albenga, 5,400.
	Vercelli	1,185	378,174	Casale, 22,512; *Vercelli*, 18,972; Biella, 7,809.
Sardinia.	Cagliari	3,914	279,285	*Cagliari*, 30,063; Oristano, 6,061; Iglesias, 4,591; Isili, 2,196.
	Nuoro	2,687	124,402	Cuglieri, 2,405; *Nuoro*, 2,325; Lanusei, 1,763.
	Sassari	2,731	143,978	*Sassari*, 22,888; Tempio, 9,466; Oziero, 8,433; Alghero, 7,126.

44. Torino (Turin), the capital of the Kingdom, is situate near the Po, where it is joined by the Dora, in latitude 45° 4′ and longitude 7° 40′, and is one of the most regularly built cities of Europe. It contains about 120 churches, several remarkable for their architecture and the splendor of their decorations. In respect of its scientific and literary establishments, Turin holds the first rank among Italian cities: of these the principal are—the University, the Military Academy, the Royal Academy of Sciences, the superb Museum of Egyptian Antiquities, the Botanic Garden, and the experimental garden of the Agricultural Society. There are several walks round Turin remarkable for their beauty, and the neighborhood is adorned with handsome villas and small towns. To the southwest of the city are the three valleys of the Waldenses, so celebrated for the persecutions of which they have been the scenes.



CHURCH OF SANTO GIOVANNI, TURIN.

45. Genova (Genoa) is a large, strong, and commercial city on the east side of a bay of the Gulf of Genoa, which forms a large and capacious harbor. This is the principal seaport. The city is built on the slope of a hill, in a delightful situation; but few of the streets are remarkable for elegance, though they contain many large and costly palaces and public buildings. Its numerous churches are all magnificent; and it possesses a university, a marine school, a deaf and dumb institution, four public libraries, and an arsenal with building-slips for the royal navy. The Albergo del Povere is perhaps the most magnificent pauper establishment in Europe. Besides the walls of the city, a large extent of ground surrounding the harbor is also inclosed by fortifications. Genoa was for a long time capital of a sovereign state—the rival of Venice in its maritime power and commerce; but its independence was lost during the French invasion of Italy, and in 1815 the city and its territory were assigned to Sardinia.



THE STRADA BALBI, GENOA.

46. Chambéri is situate on the Leysse and Albane, and on the border of a plain between two mountains. It is a tolerably well-built town, and can boast of several excellent scientific and industrial institutions, and has a considerable trade in cattle, grain, silk, copper, etc. About a mile south is Les Charmettes, the residence of Rousseau. Savoia, of which Chambéri is capital, is beyond the proper limits of Italy, and lies between the crest of the Alps and the Rhone, and chiefly consists of high Alpine valleys, drained by affluents of the Rhone. It was formerly governed by its own counts, who gradually extended their dominions to the present area of the Kingdom.

47. Alessandria, recently one of the principal fortresses of Europe, is situate on the Tanaro, near where it takes up the Bormida. It is well built, and has numerous churches, palaces, hospitals, etc., and its manufactures of cloth and linen, as also its general trade, are considerable. The strong citadel still remains, but otherwise its fortifications are demolished. To the southeast is Marengo, the scene of one of Napoleon's grandest victories.

48. Nizza (Nice), on the Mediterranean, four miles from the French frontier, has an excellent port protected by a mole, and is fortified. Wine, oil, silk, and perfumery constitute its manufactures, and being a free port it has a respectable commerce. It is a great resort for invalids. Nice is connected with Turin by a superb road over the maritime Alps.

49. Cagliari is the largest town in the island of Sardinia. It is situate on the shore of a deep bay, on the southeast coast, and its harbor is one of the safest on the Mediterranean. It has considerable manufactures of tobacco, cotton, gunpowder, furniture, leather, etc., and exports corn, oil, wine, and salt. The ancient city, on the summit of a low hill, comprises the Citadel, Palace, Cathedral, and most of the residences of the nobility. The Marina, extending thence down to the shore, is a well-built quarter, containing the bonded warehouses, lazaretto, arsenal, etc., and here dwell the consuls and merchants. The other quarters are Villa Nova and Stampace, and the suburb St. Avandré. It was formerly the residence of the viceroy.

50. The nucleus of the Sardinian monarchy was the small Alpine country of Savoy, which was governed by its own counts from 1016. In 1050 extensive districts in Piedmont were acquired; and in 1399 Nice, and in 1418 the whole of Piedmont were added. These countries were erected into a kingdom at the peace of Utrecht, in 1713. Sicily was then added, but in 1719 that island was changed for Sardinia. From 1798 to 1814 the country formed a part of the French Empire, but in 1814 was restored with Genoa and the island of Capraja. This is now one of the most liberal and enlightened states of southern Europe.

[*Weights, Measures, and Moneys.*—The official denominations are the same as in France. Accounts are kept in lire of 100 centesimi: the lira = 1 franc. The nomenclature of weights and measures is the same as in Austrian Italy.]

PRINCIPALITY OF MONACO.

51. This small state lies between Nice and Genoa, and contains only 58 square miles. It is under the protection of Sardinia, and is garrisoned by the king. The prince derives his revenue from rents and the monopoly of corn-mills. Monaco, the capital, is situate on a rocky promontory in the Mediterranean, 8 miles east-northeast from Nice. Its fortifications were erected by Louis XIV. The palace and a fine terrace overlooking the sea are its principal objects of interest.

DUCHY OF PARMA.

52. Parma, to the south of the Po, and between the Sardinian territory and Modena, has an area of 2,401 square miles.

53. In the south it is covered by the Apennine chain, which here, in the Alpe di Succiso, attains the height of 6,807 feet, and several other summits exceed 5,000 feet. Many of the rivers are mere torrents, and all flow north to the Po, which is the only stream available for navigation. Mountain lakes are numerous but small. The far greater part of the Duchy is of cretaceous formation, the whole of the loftier districts being composed of chalk. To the north marls, travertine, and sandstone occur, stretching across the country east and west in a narrow zone. Among the minerals, iron, copper, salt, lithographic stones, marbles, rock-crystal, etc., are enumerated. The loftier mountain ridges are generally covered with forests of beech, ash, oak, walnut, and chestnut, and at lower elevations elms, poplars, alders, and willows abound. Vineyards and orchards almost cover the lower hills, and the mulberry-tree is extensively cultivated.

54. The Duchy is divided into five provinces, the extent and population of which are as follows:

Provinces.	Area, sq. m.	Pop. (1854).	Capitals.	Popula.	Provinces.	Area, sq. m.	Pop. (1854).	Capitals.	Popula.
Parma	587	147,797	Parma	40,995	Val di Taro	416	51,080	Borgo di Taro	4,112
San Donino	601	134,642	Borgo San Donino	3,829	Lunigiana di Parma	173	31,836	Pontremoli	4,038
Piacenza	624	143,429	Piacenza	29,837					

—making a total population of 508,784 souls, of which number 103,489 live in towns and 405,295 live in the country.

55. The great source of wealth is agriculture, which occupies by far the greater part of the inhabitants, particularly in the low country, where the soil is remarkably fertile and is cultivated with care. Irrigation is generally practiced. Besides the cereals, tobacco and hemp are largely grown, and grazing receives much attention. The cheese of Parma, made from the milk of goats and ewes, is famous in all countries. Silk-growing is also profitably pursued. Iron is mined to some extent, and considerable quantities of salt are manufactured at the rich springs of Salso Maggiore. Manufactures have not made much progress. They consist chiefly of coarse articles of primary necessity; but also include silk, linen, and cotton goods, paper, gunpowder, brass, and earthenware. Trade is very limited. The fishery of the Po has been deemed of sufficient importance to be made a government monopoly

56. The government of Parma is a sovereignty, hereditary in the male line. All power, legislative and executive, resides in the sovereign, who governs by a ministry accountable only to himself. The laws consist of a code promulgated in 1820, and based on the Code Napoleon, though not without modifications. Justice is administered by five courts—the tribunale supremo di revisione, which sits at Parma, and has jurisdiction over the whole Duchy; the tribunale d'appello, which sits at Piacenza, two tribunali civili criminali, one at Parma and the other at Piacenza, and a tribunale civile correzionale, which has its seat at Borgo di Taro. Besides these, there are 43 inferior judges stationed in the different districts. The provinces are governed by prefects. The total receipts into the treasury in 1852 amounted to $1.789,905, of which $1,738,713 was the amount of ordinary receipts; and the total expenditures amounted to $1,783,400. The army in time of peace consists of 6,113 men of all arms; but on a war-footing the force is raised to 8,597 men.

57. The Roman Catholic is the established religion, and the greater portion of the inhabitants profess that faith. Other religions, however, are tolerated. The establishment is under the bishops of Borgo San Donino, Parma, Piacenza, and Pontremoli. Education is under strict regulations, and is wholly in the hands of the magistrates or priests. For males there are three classes of schools, the superioré or facoltativé, established at Parma and Piacenza, the secondarié, established in the chief places of each district, and the primairié, established in all the communes. Public instruction is also provided for females, and is chiefly in charge of certain orders of nuns. There are also a considerable number of private female schools.

58. Parma, the capital, is situate on the river of the same name, an affluent of the Po. Latitude 44° 48′, and longitude 10° 20′. It is of a circular form, surrounded by walls, and entered by five gates. The chief public edifices are a cathedral with valuable paintings, the ducal palace with a library of 100,000 volumes, and several learned societies, colleges, and seminaries, also a lunatic asylum and a school for the deaf and dumb. Altogether it is a handsome place, with numerous valuable manufactures and a considerable trade. It is the ancient Augusta Julia Colonia, and claims to be of Etruscan origin.

59. Piacenza, the ancient Placentia, on the right bank of the Po, is a fortified city, entered by five gates. It has a cathedral built in 1122 and several fine palaces, with a college and law and medical schools. The manufactures are various, and it has an extensive trade in grain and cattle. The famous battle of Trebbia was fought in the vicinity, 536 B. C. It is a very old city, and was originally a Roman colony.

60. Parma, anciently a part of Gallia Cispadana and Liguria, afterward became a part of the kingdom of Lombardy. Charlemagne having conquered that kingdom, presented Parma to the pope, who long held it. In the subsequent quarrels between the popes and emperors, both Parma and Piacenza became independent republics. In 1512 Pope Julius II. regained possession, and in 1543 Paul III. erected them into a duchy in favor of his son Luigi Farnese, whose line became extinct in 1731. Don Carlos, son of Philip V. of Spain, now obtained possession and kept it till 1736, in which year he became king of Naples, when it fell to his brother Philip. At the commencement of the present century it was seized by Napoleon and attached to his kingdom of Italy under the name of the department of Taro. After the downfall of Napoleon it was given to Maria Louisa for life, and the succession to the Duke of Lucca.

[*Weights, Measures, and Moneys.*—During the French occupancy the metrical system was introduced, and is still to some extent that in use, but in other instances the old denominations are retained.

Weights.—The "libre" of 12 once, 288 denari or 6 912 grani = 328 grammes or 0.72329 lb. avoirdupois; 25 libras = 1 rubbio.

Measures.—The "braccio" for cloth = 643 millimetres or 25 31542 inches and the "braccio" for silk = 595 millimetres or 23.42562 inches. The biolca of 6 tari = 0.74899 acre. The 'soma' of 10 mine, 100 pinti or 1.000 copi = 100 litres or 26.41904 gallons. The "staro" of 16 quarterole = 51.36 litres or 1.45755 bushel.

Moneys.—Accounts are stated in lire of 20 soldi each of 12 denari. This lire is worth about five cents. The lira Italiana = 1 franc.]

DUCHY OF MODENA.

61. Modena lies immediately east of Parma, and extends in a northeast and southwest direction between the Po and the Gulf of Genoa. The area is 2,336 square miles.

62. The Apennines divide this territory into two unequal parts. The country north of these mountains, which in Mount Cimone attains an elevation of 6,975 feet, belongs to the basin of the Po, and is in a great part covered with ramifications from the main chain. These, however, rapidly subside in proceeding northward, and finally merge into fertile and beautifully undulating plains. The streams, originating in the Apennines, pursue a northern course to the Po in lateral valleys: of these the most important are the Panaro, Secchia, and Crostolo. The other portions of the country lie on the south side of the mountains, and are drained by the Magra and its tributaries, with the exception of a small portion, which sends its waters directly to the coast.

63. The geological structure of the country is very simple. The alluvial deposits, spread so widely and deeply over the plains of Lombardy, are continued south into Modena almost to its center, where they are succeeded first by a narrow bed of tertiary marls and sandstone, and then by a considerable tract of the cretaceous rocks, which form the upper extremity of the secondary formation. Toward the Mediterranean diluvial and alluvial deposits again appear. The minerals are not of much consequence, but include iron, marble, gypsum, sulphur, and petroleum.

64. The climate differs considerably on the north and south sides of the Apennines—on both it is temperate and healthy, but on the north side the winter cold is sometimes keen, whereas on the south it is scarcely felt, and the olive and the orange flourish vigorously in the open air. The soil is generally fertile, especially in the plains and valleys. The declivities of the Apennines are clothed with fine forests of oak, beach, pine, and chestnut, and the pasturage of the mountains is excellent.

65. Modena is generally an agricultural country. Rice, wheat, maize, fruits, and hemp are the principal articles of culture, but the cereal produce is insufficient for consumption. The olive and grape are extensively and carefully cultivated. The wine of the Duchy is strong, but not of superior quality, and the oil is equal to that of Genoa. The best quality is that produced on the south of the mountains. Bees, poultry, and hogs are numerous. Cattle-breeding is not very extensively pursued except in the valley of the Garfagnana, where it is almost the sole occupation of the inhabitants. Horses are few, oxen and asses supplying their places for draught.

66. Next in importance to rural husbandry is the culture and manufacture of silk. The other manufactures are on a small scale, and consist principally of canvas, leather, paper, glass, and earthenware. In Garfagnana some iron is forged, and in Massa-Carrara the finest statuary marble is found in inexhaustible quantities and extensively wrought. The trade of the country is comparatively limited, and little else than its marble is exported. The total value exports and imports is about 22 million lire a year.

67. The government, unprovided with constitutional checks, is an almost absolute sovereignty. Both the legislative and executive powers vest in the duke, and he rules by a ministry responsible only to himself. The provinces are governed by delegates of the minister of the interior. The judiciary consists of courts of primary jurisdiction in the chief cities and a high court of appeals in the capital. The Austrian civil code of laws has been adopted since 1815. The army consists of 3,500, and the militia 14,656 men. The army is recruited by volunteers. The Duchy has no navy. The revenue for the year 1851 amounted to 8,413,622 lire, and the expenditures to 8,728,133 lire.

68. The Roman Catholic Church is established to the exclusion of all others, and is presided over by the bishops of Carpi, Guastalla, Massa-Carrara, Modena, and Reggio. Education is under ecclesiastical supervision, and is not widely diffused among the people. A college is established in each of the chief towns, and the capital has a school of law and medicine, and several superior schools. Public libraries are numerous; that of Modena contains 120,000 volumes, and a fine collection of manuscripts; and there are also in the principal towns museums and collections of antiquities, paintings, etc.

69. The Duchy is divided into seven provinces, namely:

Provinces.	Area, sq. m.	Pop. (1855).	Capitals.	Popula.	Provinces.	Area, sq. m.	Pop. (1855).	Capitals.	Popula.
Modena	614	209,499	Modena	28,810	Garfagnana	209	38,127	Castelnuovo	2,722
Reggio	735	168,487	Reggio	18,483	Massa-Carrara	178	57,031	Massa di Carrara	9,826
Guastalla	123	50,466	Guastalla	2,879	and				
Frignano	409	59,763	Frignano	3,205	Lunigiana	69	17,303	——	

—making a total of 600,676 inhabitants, or 257.1 to the square mile of territory. Of the whole number 304,560 were males, and 296,116 females.

70. Modena, the largest city and the residence of the duke, is situate on a low but fertile plain between the Secchia and the Panaro, in latitude 44° 38′ 53″ north, and 10° 55′ 59″ east. It is walled, and consists of three parts—the citadel, which with its esplanade occupies about a third of the whole, the old town, and the new town. The most remarkable edifices are the Cathedral, the Church of San Francisco, and the Ducal Palace. It has also numerous institutions of learning, art, and science. The manufactures consist chiefly of silk goods, silk-twist, woolen and hempen cloth, leather, and glass. The trade is very insignificant. The city communicates with the Panaro by a canal.

71. Reggio is a fortified city, 14 miles west of Modena on the Æmilian way, and is connected with the Po by a navigable canal. It has a cathedral, citadel, and several literary and scientific institutions. Silk, hemp, wood, horn, and ivory articles are manufactured, and the city has a considerable trade in cattle and agricultural products. Guastalla, on the Po, formerly belonged to Parma. Its manufactures consist chiefly of silk fabrics and twist.

72. Massa di Carrara is the third city in rank. Carrara, northwest of Massa, has a large trade in marble. The port of embarkation is L'Avenza, three miles southwest of Carrara. Castelnuovo, Mirandola, Finale, Carpi, Sassaolo, Rubiera, Novallara, Canossa, and Correggio are also important places.

73. Modena, after passing through the hands of a great number of masters, was finally erected into a duchy in 1453, and settled on Borso d'Este, son of Pope Nicholas III. This settlement was maintained till the French Revolution, when the Duchy lost its independence, and was merged successively into the Cisalpine Republic and the Kingdom of Italy. In 1814 it was given to a collateral branch of the house of Austria. In 1849 it received additional territory in Guastalla, etc.

[*Weights, Measures, and Moneys.*—The French system is official, but several of the ancient series are practically retained.

Weights.—The "libbra nuova" = 1 kilogramme or 2.20486 lbs. avoirdupois; 100 libbras = 10 rubbia = 1 centimajo. The "libbra" (old Modena) = 340.16 grammes or 0.75067 lb. avoirdupois; 100 = 1 quintal, and the "libbra" (old Reggio) = 320.76 grammes or 0.70723 lb. avoirdupois; 100 = 1 cantaro piccolo, and 277.7-9 = 1 cantaro grosso.

Measures.—The "metro nuova" = 1 metre or 1.09363 yard. The "braccio" (Modena) = 619.94 millimetres or 39.37079 inches, and the "braccio" (Reggio) = 529.8 millimetres or 20.85864 inches. The "bioloa" of 72 tavoli = 0.70099 acre. The "soma" = 100 litres or 26.41904 gallons or 2.83791 bushels. The stajo (old) = 70.4 litres or 1.99788 bushel.

Moneys.—Money is reckoned in the lira Italiana of 100 centesimi. The old lira was divided into 20 soldi, each of 12 denari.]

GRAND DUCHY OF TUSCANY.

74. Tuscany is a considerable state lying west of the States of the Church, and facing on the Tuscan Sea, in which lie the islands of Elba, Gorgona, Pianosa, Monte Cristo, Giglio, etc. The area is 8,553 square miles.

75. The north and northeast portions of Tuscany are covered with the chain and offshoots of the Apennines. The highest point of the chain within the Grand Duchy, Monte Falterona, in which the Arno has its origin, is 5,557 feet above the sea. The remainder of the territory, except along the south coast, where is the Maremma, a low, flat district, is agreeably diversified by hills and valleys. The principal rivers are the Serchio, Arno, and Ombrone. The Tiber rises in the east of Tuscany, and is connected by means of its principal branch and the Chiana Canal with the Arno. The country is celebrated for its mineral riches and for the number of its mineral and thermal springs. From its fertility the Val d'Arno is called the garden of Italy; but the greater portion of the country is also of singularly productive soil.

76. Tuscany has a varied and valuable industry. The staples of agriculture are the olive and grape. The culture of the former is prosecuted with great care, and the oil of Florence has long been celebrated. The chief grain crops are—maize, wheat, rye, and barley. Live-stock is abundant; the mule and sheep are of superior breeds, and large herds of cattle are pastured on the drained portions of the Maremma. The principal manufactures are silks, woolens, paper of excellent quality, and straw goods. The carpet manufacture is also carried on largely. Iron is extensively mined in Elba. The statuary marbles of Tuscany are among the finest in Italy. The coral fisheries are valuable.

77. In 1855 its commercial marine comprised 939 vessels of all sizes, with a total of 55,631 tons. The exports consist principally of olive oil, hides, straw goods, borax, rags, wool, hemp, potash, coral, marble, tallow, cork, and fine papers. For internal commerce the conveniences are ample, the roads, bridges, canals, etc., being well kept—the roads in particular. Railroads connect the principal cities.

78. Tuscany was formerly an absolute monarchy, but in 1848 received a representative constitution. It has long been considered the most enlightened and flourishing state in Italy. The chiefs of departments are called prefects or governors. Justice is administered in small towns and villages by syndics. There are courts of primary jurisdiction in the cities, and royal courts in Florence and Lucca. The court of cassation is the highest tribunal of the state. The army, including the gendarmerie and marines, comprises an aggregate of 16,487 men of all arms. The navy consists of three armed schooners and two gun-boats. The receipts into the public treasury for the year 1855 amounted to 37,716,400 lire, and the expenditures for the same period to 37,728,100 lire.

79. The system of education in Tuscany decreed in June, 1852, institutes a primary school in each commune, a gymnasium in certain towns, and a lyceum at Florence, Lucca, Leghorn, Pisa, and Arezzo. There are universities at Pisa and Siena, and in Florence several famous schools. Pisa and Siena have deaf and dumb institutions. The Italian language is spoken in Tuscany in its greatest purity. The religion of the state is the Roman Catholic, and all the inhabitants, except a few Jews, Protestants, and Greeks in Leghorn, belong to that church. The hierarchy consists of the archbishops of Florence, Lucca, Pisa, and Siena, and eighteen or twenty bishops.

80. For administrative purposes Tuscany is divided into six departments and two governments as follows:

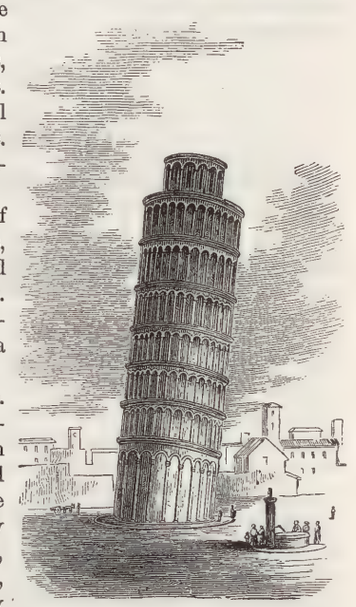
Departments, etc.	Area, sq. m.	Pop. (1855).	Capitals.	Popula.	Departments, etc.	Area, sq. m.	Pop. (1855).	Capitals.	Popula.
Firenze (Florence)	2,259	712,587	Firenze	115,675	Arezzo	1,275	220,607	Arezzo	11,716
Lucca	514	264,430	Lucca	24,894	Grossetto	1,719	82,929	Grossetto	2,815
Pisa	1,184	232,055	Pisa	21,670	Livorno (Legh.) *Gov.*	39	90,722	Livorno	80,216
Siena	1,465	191,108	Siena	20,637	Isle of Elba	"	98	23,028	P. Ferraja	4,235

—making a total of 1,817,466 inhabitants, or 212.4 to the square mile of territory.

81. Firenze or Florence, the capital, is situate on the Arno, in a fertile plain at the foot of the Apennines. Latitude 43° 46′, and longitude 11° 15′. The environs are occupied by many splendid villas, and the city contains an immense number of monuments of the fine arts. The churches and palaces, public and private, are adorned with the paintings and statuary of the first masters, and its libraries are among the richest in the world. Among its many educational establishments, its university ranks first, and it has also a magnificent observatory, a museum of natural history, and a botanic garden. The manufactures of the city comprise silks, carpets, straw hats, mosaic work, porcelain, and jewelry.

82. Lucca, on the Serchio, and lately the capital of the duchy of the same name, is also a fine city, and contains many handsome buildings, a university, and several scientific societies. In the vicinity are situate the celebrated "Baths of Lucca."

83. Pisa, on the Arno, seven miles from its mouth, was formerly capital of a sovereign republic, and the great rival of Genoa. It is famous for its "leaning tower," and also as the reputed birthplace of Galileo. Valuable marbles are quarried in its neighborhood. Siena, situate between two affluents of the Ombrone, has many fine edifices, among which its cathedral and university are prominent. In the middle ages it was the capital of a powerful republic, and is said to have had 100,000 inhabitants. Arezzo, on the Chiana, is a very ancient city, and contains several Etruscan and Roman antiquities.



LEANING TOWER, PISA.

84. Leghorn or Livorno is the principal sea-port of Tuscany, and has considerable manufactures of straw hats, glass, paper, and soap. It is a fine modern town, and owes much of its importance from being a free port. The harbor is entirely artificial. Its trade is very extensive, and ramifies throughout Tuscany. Porto Ferraja is the capital of Elba, and a principal sea-port.

85. Etruria was conquered by the Romans 280 B. C. After the fall of the Western Empire it successively belonged to the Goths and Lombards, by the latter of whom it was erected into a duchy. Charlemagne conquered Tuscany with the rest of Lombardy, but under his feeble successors it achieved its independence. The territory was afterward, in the twelfth and thirteenth centuries, divided among the famous republics of Florence, Pisa, and Siena. These were reunited in 1531 into a duchy under Alex. de Medici, in whose family it remained till its extinction in 1737, when it fell to the house of Austria. In 1801 Napoleon erected it into the Kingdom of Etruria for the prince of Parma; but in 1808 it was incorporated with the French Empire. Since 1814 it has reverted to Austria, and is now governed by one of the Austrian archdukes. In 1847 and 1849 some territorial changes were effected.

[*Weights, Measures, and Moneys.*—The official standards are those of Leghorn.

Weights.—The "libbra" of 6,912 grani = 339.5421 grammes or 5,246 grains Troy or 0.74943 lb. avoirdupois; 100 = 1 centimajo, and 160 = 1 cantaro.

Measures.—The "braccio" of 20 soldi = 583.66 millimetres or 22.97915 inches; 5 = 1 canna, and 2,833 = 1 stadio or mile. The "barilo" (wine) of 20 fiasci = 45.5842 litres or 12.04285 gallons, and the "barilo" (oil) of 16 fiasci = 33.43 litres or 8.83188 gallons; 10 = 5 soma or 1 cogna. The "stajo" of 2 mine = 24.3629 litres or 0.69139 bushel; 24 = 8 sacci = 2 rubbi = 1 moggio.

Moneys.—Accounts are kept in the pezza of 20 soldi, each of 12 denari. The gold coins are the ducat or sequin, and the ruspone equal to three ducats. These are minted from pure metal. The ducat weighs 71 grani or 53.88 grains Troy, and is worth $2.31403. The fiorino (silver) is coined from metal 11 denari or 917 fine, and weighs 139 grani or 105.5 grains Troy, and is worth $0.27903; 4 fiorini = 1 leopoldone or pezza.]

ROMAN OR PAPAL STATES.

86. The Roman States extend from the Po and the Adriatic to the Mediterranean. The shape of the country is very irregular; the greatest extent, north and south, from the mouths of the Po to Cape Circello, is about 280 miles, and the breadth varies—from not more than

18 miles from the northeast corner of Tuscany to the Adriatic coast (nearly on the parallel of Forli), to 140 miles from Ancona to Civitta Vecchia. Including the isolated territories of Benevento and Ponte Corvo, inclosed by Naples, the area is estimated at 15,903 square miles.



CASTLE OF ST. ANGELO, ROME.

87. These states occupy the middle portion of Italy. The coast-line measures about 370 miles, of which 210 miles are on the Adriatic and 160 miles on the Mediterranean, and on both seas is generally flat and marshy, unbroken by a single bay of any magnitude, and not possessed of any tolerable harbors, except those of Ancona and Civitta Vecchia. The interior is traversed longitudinally by the central chain of the Apennines, which sends off several low ramifications both to the east and to the west. The loftiest summits of the chain within the Papal territory are in the south, where Vetora rises to the height of 8,133 feet, Sibilla 7,210 feet, and Pennino 5,250 feet.

88. This great chain of mountains, forming the watershed of the country, divides its waters nearly in equal portions between the two seas—the Adriatic and the Mediterranean. None of the rivers, except the Po (which makes nearly the whole northern boundary) and the Tiber (the largest of the wholly Roman rivers), are of much navigable importance. They are, however, exceedingly useful wherever the country is sloping or undulating, by the use made of them in irrigation. Where the ground becomes low and spreads out into extensive flats the advantage is lost, and the rivers become the worst scourges of the country, by the pestilential swamps which they form. All the lakes of any consequence are on the Mediterranean side of the watershed. The largest are the Perugia or Trasimeno, the Bolsena, and the Bracciano. They are situated in a mountain region, and evidently occupy the craters of extinct volcanoes.

89. The only metal which has yet been discovered in sufficient quantity to justify the working is iron. The other minerals are alum, sulphur, saltpeter, rock-salt, several varieties of marble, puzzuolano, bitumen, alabaster, gypsum, chalk, coal, fuller's earth, and potter's clay. In several localities fine rock-crystals and garnets are found. Rome is principally built of volcanic tufa, which composes the general soil of the Campagna. Some sulphur springs exist at Poretta, north of the Apennines, and various kinds of mineral springs are common elsewhere.

90. In all the country traversed by the Apennines and their ramifications, the air, though occasionally keen, is pure and healthy; but in the lower grounds pestilential vapors overcharge the atmosphere, and malaria prevails to such a fearful extent that large tracts have been almost converted into uninhabitable deserts. To the north of the Apennines the winter temperature is far lower than on the south slope; and hence in the former locality, owing more to this cause than to any deficiency of summer's heat, oranges, lemons, and similar fruit can not be successfully grown in the open air; while in the latter locality winter is little felt, the more delicate fruits grow freely, and vegetation is never so completely checked as not to give signs both of life and vigor. The influence of the sirocco is often severely felt on the south coasts. The soil is in general possessed of great natural fertility, and when cultivated with the least skill produces heavy crops. Unfortunately, however, large tracts of the richest land, owing to their unhealthiness, are left almost in a state of nature. Other extensive tracts—to which certainly the same objection does not apply, since they are the healthiest in the country—are necessarily excluded from regular cultivation by the elevation and rugged nature of their surface. Tracts of this description lie along the central ridge of the Apennines, but fail not to yield profitable returns from the verdant pastures and magnificent forests which generally clothe them. Immense herds of buffalo traverse the plains.

91. These states are behind all others in industrial pursuits. Husbandry is undoubtedly the great employment of the inhabitants. The grain produced, however, barely suffices for the consumption. Both the vine and the olive thrive well; and silk, especially along the shores of the Adriatic, is a valuable product. Livestock is abundant. Sheep and goats are valued less for their fleece and carcass than for their milk, from which cheese of excellent quality is made. Among the manufactures may be mentioned the crape vails and hempen and linen tissues of Bologna; the silks of Bologna, Rome, and Perugia, the woolens and hosiery of the last two places, artificial flowers, perfumes, leathers, paper, confectionery, false pearls, jewelry, mosaics, etc. Trade is very much interrupted by the want of navigable streams, canals, and good roads. The railroad is still unknown in these states. Communication across the Apennines is difficult, and mainly by mules. In 1854 the shipping entered at Ancona and Civitta Vecchia amounted to 254,824 tons, and the value of imports to 10,218,426 scudi; and the shipping cleared amounted to 251,992 tons, and the value of exports to 10,474,012 scudi. The coast fisheries are very valuable.

92. The government is an elective sovereignty. The sovereign, who bears the title of Papa or Pope, must be at the time of his election a cardinal priest or prince of the Church, and is chosen for life by his fellow-cardinals, who constitute the Sacred College. The hierarchical principle thus displayed is not confined to the higher offices, but is continued throughout the whole series—the priestly being an indispensable qualification for the tenure of any civil office. The number of cardinals is seventy, and all vacancies may be filled up by the Pope absolutely. The government is administered by congregazioni or boards, presided over by a cardinal secretary of state as prime minister. The comarca of Rome is presided over by a governor, who has very extensive powers, and the provinces or legazione and delegazione by legates and delegates, each assisted by a council. The provinces are subdivided into distretti or districts, with governors, who also act as judges in minor cases, civil and criminal. Appeal from the district courts lies to the collegiate court, which has also primary jurisdiction over the whole province. Above the collegiate courts are the three superior courts at Rome, Bologna, and Macerata; and a still higher court is the Sacra Ruota, the limit of the jurisdiction of which is not very easily defined as it extends over all countries where the Pope's authority is recognized.

93. The exact amount of the papal revenue can not be ascertained, as a great part of it is ecclesiastical. The secular revenue in 1853 amounted to 11,346,311 scudi, and the expenditures to 12,487,412 scudi. The public debt amounted in 1855 to 65,006,193 scudi.

94. The army comprises ostensibly 21,059 men, but the effective army is rated at only 12,828. Besides this there is a coast-guard amounting to 1,200 men. A few gun-brigs and smaller craft, and two steamers, compose the papal navy.

95. The ecclesiastical establishment, exclusive of Rome, numbers 9 archbishops, 50 bishops, 13 abbots, 3,500 secular priests, 10,000 regulars or monks, and 8,000 nuns. The Roman Catholic religion is here of course dominant, and no subject of the Pope is allowed to profess any other. Exception is made in favor of the Jews.

96. Education is wholly in the hands of the clergy and makes a good show upon paper, the educational institutions including eight universities, two primary at Rome and Bologna, and six secondary; bishops' schools in all districts rich enough to support them; and communal schools, one of which ought to be in every commune. Instruction, however, is actually provided for not more than one in fifty of the population.

97. For administrative purposes the Papal States are divided as follows:

Civil Divisions.	Area, sq. m.	Pop. (1852).	Capitals.	Popula.
Roma (*Comarca*)	1,707	304,266	Roma	178,798
Bologna (*Legation*)	1,297	367,340	Bologna	75,100
Ferrara "	1,056	229,862	Ferrara	30,948
Forli "	685	208,007	Forli	16,800
Ravenna "	677	175,338	Ravenna	10,582
Urbino e Pesaro "	1,363	241,612	Urbino	7,600
Velletri "	634	59,356	Velletri	10,612
Ancona (*Delegation*)	426	172,393	Ancona	36,000
Macerata "	867	239,942	Macerata	16,000
Camerino "	313	88,055	Camerino	5,200
Fermo "	317	111,751	Fermo	6,331
Ascoli (*Delegation*)	462	87,619	Ascoli	12,600
Perugia "	1,454	222,926	Perugia	18,301
Spoleto "	1,133	123,765	Spoleto	6,824
Rieti "	514	77,212	Rieti	8,903
Viterbo "	1,087	129,074	Viterbo	14,298
Orvieto "	303	26,450	Orvieto	6,210
Frosinone & P. Corvo	725	148,378	Frosinone	6,800
Civitta Vecchia "	374	20,385	Civit. Vecchia	8,400
Benevento "	53	23,040	Benevento	23,000
Total	15,448*	3,006,771		

98. Roma or Rome, the capital, is situate on the Tiber, 17 miles from its mouth, in latitude 41° 54′ and longitude 12° 27′. The city is built on marshy ground at the foot of a range of low hills, and is separated by the Tiber into two unequal parts, Rome proper and the Leonine City or Trastavere, the latter containing the Vatican and the Castle of St. Angelo. Its walls are 15 miles in circuit, and are pierced by 18 gates. Many of the squares are ornamented with richly sculptured fountains, which are supplied with water by three extensive aqueducts. Notwithstanding its architectural and artistical riches, however, modern Rome has a sad and desolate aspect. Most of the streets are narrow, dirty, and unpaved. Near the Capitoline Hill is the Ghetto or Jews' quarter.

99. Rome has 364 churches. St. Peter's is the largest and most sumptuous in Christendom. The Church of St. John Lateran, in which the popes were crowned, is the mother church, and contains the gorgeous Corsini chapel. The Church of St. Peter in Vinculo is regarded as the most ancient in Rome.



ST. PETER'S, FROM THE TIBER.

100. The Vatican, adjoining St. Peter's, is the largest palace in Europe, and is said to contain 4,422 halls, chapels, and other apartments. Two of its vast galleries contain the famous library which comprises 125,000 volumes. The palace of the Quirinal has long been the summer residence of the popes, and attached to this is the palace of the Dataria Apostolica, whence the pontifical bulls issue. In the square of the Quirinal is the palace of the Consulta, seat of the supreme tribunal. The palace of Salviali contains the archives of Rome. In the Campidoglio or modern Capitol, forming three sides of a square, are the

* In this area are not included 430 square miles occupied by waters and roads, nor yet 25 square miles occupied by cities, which together make the total area 15,903 square miles.

palace of the Senate of Rome, that of the Conservatori, the Capitoline Museum, and the University, and facing these is placed the famous bronze statue of Marcus Aurelius.

101. Of the many scientific and literary institutions, the University has the first rank. The principal others are—the Roman College, founded by the Jesuits, and the College of the Propaganda. There are also English, Irish, Scotch, and 17 other colleges. In the institution of the Ripa Grande 1,000 children are instructed in arts and trades, and there are numerous schools of painting, sculpture, and architecture. Rome has at present eight theaters, a deaf and dumb institution, and numerous hospitals and benevolent institutions, orphan hospitals, and houses of industry. The chief industry of the inhabitants is connected with the production of articles of vertú, and the supply of artists, invalids, and other visitors. Many of the people are occupied in attendance on the ecclesiastical courts. In 1852 there were in Rome 32 cardinals, 29 bishops, 124 prelates, 1,738 secular and 2,488 regular clergy, and 1,743 nuns.

102. The noble remains of ancient Rome comprise the Pontus Ælius, now the bridge of St. Angelo, the Cloaca Maxima, several aqueducts, the Pantheon, the circus of Romulus, the circus Maximus, the Coliseum, the remains of the theater of Marcellus, the baths of Agrippa, those of Caracalla, Diocletian, Nero, Titus, etc., the triumphal arches of Titus, Constantine, and Septimus Severus, the columns of Antoninus and Trajan, the Egyptian obelisks, the Roman forum, etc.

103. Rome was founded about 753 B. C. The city was taken by Alaric 410 A. D., and by Genseric 455. It passed successively under the dominion of the Ostrogoths and the emperors of the East, was given to the popes by Pepin and Charlemagne in the eighth century, and then became the capital of the States of the Church, and is still the center of Catholic Christendom.

104. Ostia, at the mouth of the southern branch of the Tiber, and formerly the port of Rome, is now almost entirely abandoned on account of the unhealthiness of the site. At the mouth of the other branch is Fiumicino, adjoining the remains of the port and docks constructed by the emperors Claudius and Trajan. Civitta Vecchia, farther to the northward, and 40 miles northwest of Rome, has considerable trade, and is the chief naval port of the Pontifical States on the side of the Mediterranean.

105. Ancona, on the Adriatic coast, 130 miles north-northeast of Rome, is a busy commercial town with a fine harbor, formed by an ancient pier or mole 2,000 feet in length. It has manufactures of wax, silk hats, and paper. Bologna, in the northern part of the territory, 27 miles distant from the south bank of the Po, is distinguished for its ancient university, its academies of the fine arts, and various literary institutions. It is the second city in importance in the Pontifical States, and has considerable manufactures of silk, glass, wax, chemicals, musical instruments, etc., and a great deal of inland trade. Ferrara, near the banks of the Po, in a flat, marshy district, is a fortified city, and the seat of a university. Ravenna, 40 miles to the east of Bologna, is an ancient city of great historical celebrity, but now decayed. It formerly stood on the sea-shore, but is at present several miles inland, owing to the extension of the coast on either side of the mouths of the Po. Perugia, 9 miles north of Rome, has some silk manufactures and contains a university.



ANCONA.

106. The Papal States, as containing the nucleus of the last and greatest of the ancient empires, have a history full of interest; but their existence under the form they now present dates only from the middle of the eighth century. Long before this period the bishop of Rome had acquired vast ecclesiastical influence, and claimed, under the title of Pope, to be the supreme head of Christendom; but his temporal possessions laid within a very narrow compass, and he was often molested by foreigners. One of the most formidable of these was Astolphus, king of the Lombards. To rid himself of his presence, and aware of the inability of the Greek emperor to assist him, Stephen II., the then pope, applied to Pepin, who not only espoused his cause and expelled his enemies, but in 755 granted to the Church a right in perpetuity to the territories reclaimed. The Lombards, who were very much dissatisfied with Pepin's donation, no sooner learned of his death than they laid siege to Rome. Charlemagne, the son and successor of Pepin, hastened to the rescue, and not content with renewing his father's grant, considerably enlarged it.

107. At first the Pope held his possessions under the Greek emperor, but this yoke, which was never borne meekly, was ultimately thrown off, and Stephen V., on his election in 816, refused what until then had been necessary—the confirmation of the emperor. Papal ambition had now a free course, and the Pope found himself, not only in spiritual, but also in temporal things, lord paramount throughout Christendom. Such claims could not fail to call forth strenuous opposition, and accordingly a fierce struggle, which was not terminated for centuries, took place between the popes and the emperors of Germany; and when it did terminate, the Pope not only succeeded in obtaining a recognition of his pretensions, but in adding largely to his patrimony.

108. This temporal supremacy, as all history tells, was not allowed to remain a dead letter, and thrones and empires were disposed of at the will of this power. The abuses of the authority thus acquired and generally acquiesced in were not infrequent, and were the cause of the sovereignty, though apparently at its very zenith, being greatly weakened, and in the beginning of the fifteenth century symptoms of decay were strongly manifested. Subsequent to this period the popes, instead of increasing, found it difficult to maintain themselves in their temporal possessions. During the sixteenth century the Reformation commenced, and ultimately delivered the better half of Europe from spiritual thralldom; and, in regard to temporal authority, the Pope was compelled to descend from his lofty eminence as king of kings.

109. Since these events little of interest has occurred. The most memorable are those succeeding the French Revolution. In 1797 the French seized the northern legations and annexed them to their Cisalpine Republic, and in 1810 the whole of the Papal States were incorporated into the kingdom of Italy, and the Pope was carried off to France, where he remained under surveillance until Napoleon's downfall, in 1814. The Pope again possesses his temporal sovereignty, though obviously by a very precarious tenure. He could make no effectual resistance against foreign aggression, and he was recently (24th November, 1848) driven from his capital by civil war. He has returned, but only to occupy a position humiliating to any sovereign, and assuredly most damaging to his lofty pretensions.

[*Weights, Measures, and Moneys.*—The Roman denominations are as follows:

Weights.—The "libbra" of 12 once = 339.16 grammes or 0.74781 lb avoirdupois; 1.000 = 100 decine = 10 cantari sottile = 1 cantaro grosso. The libbra (Bologna) = 361.85 grammes or 0.79781 lb. avoirdupois; (Ancona) = 330.0833 grammes or 0.71566 lb. avoirdupois, and (Ferrara) = 345.1372 grammes or 0.76100 lb. avoirdupois.

Measures.—The canna (commercial) of 8 palmi = 2001.55 millimetres or 2.18896 yards, and (builders') of 10 palmi = 2,234.2 millimetres or 2.44333 yards. The braccio (Ancona) = 643 millimetres or 0.70321 yard, and (Bologna) = 640.04 millimetres or 0.70103 yard. The "tavola censuale" = 1.000 square metres. The "barilo" (wine) of 32 boccali = 58.3 litres or 15.4023 gallons, and (oil) = 51 litres or 13.47696 gallons. The rubbio = 294.45 litres or 8.35763 bushels. The rubbio (Ancona) of 8 coppe = 281 litres or 7.77452 bushels. The corba (Bologna) = 78.6455 litres or 2.23201 bushels. The moggio (Ferrara) = 630.7 litres or 17.89867 bushels.

Moneys.—Accounts are stated in scudi of 10 paoli, each of 10 bajocchi. Gold is minted 900 fine, and the 10 scudi piece weighs 267.87 grains Troy, worth $10.38256. The scudo is minted from silver 900 fine, and weighs 414.64 grains Troy, and hence is worth $1.00518.]

REGENCY OF SAN MARINO.

110. This small state occupies an area of only 24 square miles, and is inclosed on all sides by the Papal States. Latitude (town) 43° 58′ and longitude 12° 21′. It consists of a craggy mountain, about 2,200 feet high, on which is the capital, and some circumjacent territory, with the villages of Serravalle, Montegiardino, and Faetano, the centers of districts respectively so called. The people, numbering between 7,000 and 8,000, are employed in rural industry and the manufacture of silk. San Marino is the last surviving representative of the Italian republics, and has preserved its independence for fourteen centuries.

111. By its constitution, which is unwritten, the legislature consists of a sovereign general council of 60 members (nobles, citizens, and small proprietors in equal numbers), named for life by the council itself. The executive is exercised by two regenti, elected every six months, and these are assisted in their duties by 12 members of the legislature selected for that purpose, two thirds of the number annually. The administration of justice is intrusted to a foreign jurisconsult only, who is chosen every three years, and the same person may serve a second term. The military consists of 80 men, forming the guard of the regency. The public revenue amounts to $6,000.

112. The town of San Marino, built around a hermitage founded in 441 by Marinus, a native of Dalmatia, is accessible by only one road, is surrounded by walls, and has three forts. The principal edifices are the town-hall, five churches (one having the tomb and statue of Marinus), a theater, two convents, two vast cisterns for public use, the government palace, with schools and museums. The principal object of interest in the town, however, is a superb cabinet of medals, amounting to upward of 40,000 specimens. The more wealthy inhabitants reside in the suburb Borgo, at the foot of the hill, which shelters it from the cold winds which blow over the town. The regency is under the protection of the Pope.

KINGDOM OF THE TWO SICILIES.

113. The Two Sicilies occupy the southern extremity of the Italian peninsula and the Island of Sicily, which are separated from each other by the Strait of Messina. The greatest length of the continental portion, northwest and southeast, is 345 miles, and the average width thereof not more than 95 miles—area 32,621 square miles. Sicily has its greatest length east and west, in which direction it measures about 185 miles, and its greatest width is in its eastern part along the coast, where it measures 120 miles—area 10,580 square miles. Total area 43,201 square miles.

114. The continental portion of the Kingdom consists of the ankle, spur, heel, and foot of the boot to which Italy as a whole bears so striking a resemblance. The coast on the Adriatic is generally low and unbroken, exhibiting only one very marked projection in the spur, occupied chiefly by Monte Angelo, and of which the south shore forms the northern limit of the Gulf of Manfredonia. The Mediterranean shore is bold and rocky, broken into numerous bays with projecting headlands, and in the southeast is deeply indented by the Gulf of Otranto.

115. The interior is traversed by the Apennines, which, entering from the Papal States, proceed through it first in a southeast and then in a south direction till they reach the Strait of Messina. These throw off many branches, which intersect the country in every direction. Several of their loftiest summits are within this Kingdom, and among others are Monte Corno, the culminating point of the whole range, 9,519 feet, Monte Amaro 9,131 feet, and Monte Velino 8,174 feet. The chief isolated mountains are the volcano Vesuvius and Monte Gargano. But the surface is not always mountainous, for even between the highest ridges valleys often of great length intervene, and where the hills assume rounded forms, large undulating tracts are found, while toward the coast on both sides the hills give place to extensive plains.

116. The rivers of Naples are very numerous, and carry their waters either into the Mediterranean or the Adriatic. They in general rise in the Apennines, at no great distance

from the coast, and hence are seldom of great magnitude. To the Adriatic belong the Vomano, Pescaro, Sangro, Trigno, Biferno, Fortore, Candelaro, Cervaro, Carapella, and Ofanto; and to the Mediterranean the Garigliano, Volturno, Sele, Basento, and Bredano. The principal lakes are the Celano or Fucino, in Abruzzo-Ultra, and the lagoons of Lesina and Varano in Capitanata, near the shores of the Adriatic.

117. The climate necessarily varies with locality and altitude; some of the mountains are clothed in snow for more than half the year, and even in lower districts which have a northern exposure, the cold is severe, and prevents the development of plants which under more favorable circumstances flourish in the same latitudes. Where the surface is low, and the hills serve only to protect it from northern blasts, a very different climate prevails, and in such circumstances the summer heat often becomes extreme; but the rigors of winter are unknown, and the spring and fall are delightful. In the plain of Lavora, a deep alluvial flat, which stretches north from the capital along the shore for 40 miles, and in several other places, the climate is of this description, and vegetation, subjected to no check, is always luxuriant, and with the slightest exertion of labor yields the most abundant returns.

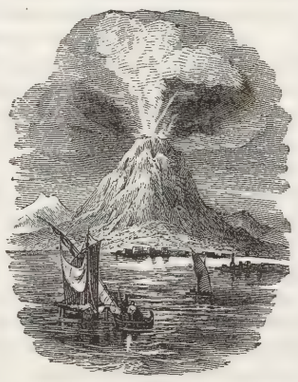
118. In geological structure the south of Italy bears a considerable resemblance to the north, though the direction of the strata is nearly reversed. In the north, the primitive rocks are situated on the frontier, and the secondary and tertiary formations come successively to the surface in proceeding south. In Naples, granite, gneiss, and mica schist predominate in the south, and are succeeded by the newer formations, consisting chiefly of marls, travertine, and sandstone of the tertiary formation. A different formation, not yet mentioned, is the volcanic, which stretches along the Gulf of Naples and part of that of Gaeta, covering a large surface with decomposed lava, to which it owes its remarkable fertility. There can be no doubt here as to the center of volcanic agency—Vesuvius—which still continues active, and repeatedly within the Christian era has burst forth and overwhelmed celebrated cities. There are few indications of metals; but beds of rock-salt are found, chiefly in Calabria, sulphur in the volcanic regions, and alum and saltpeter in several districts. The quarries furnish excellent marble and lava, which are extensively used both for building and pavement.

119. The northern and southern provinces, from the rugged nature of the surface, are in a great measure excluded from agricultural use; but of these a considerable portion is occupied by magnificent forests, and the remainder affords extensive pasturage. In the middle region a genial climate and rich soils secure to it a bountiful return for labor. Wheat, barley, maize, and rye form the principal crops, and on the finer lands these are remarkable both for abundance and quality. On the lower flats rice is frequently grown. The mulberry and olive also are generally cultivated. Cotton, liquorice, and tobacco are leading crops in particular districts; and many varieties of fruit, especially figs, lemons, and oranges, are very abundant. Throughout the Kingdom the vine is carefully and skillfully cultivated, and several of the wines bear a very high name, among which may be noted the well-known *lacryma christi*, and those produced like it on the slopes of Vesuvius.

120. Among domestic animals sheep are the most numerous; horned cattle are of several good native breeds, and large herds of buffaloes wander over some of the marshy plains. The horses of Calabria, though of small size, have ever been famous for activity and spirit, and those in the vicinity of Naples have long been in demand in other countries. The most common beasts of burden are asses and mules. Goats in the mountains and hogs in the forests are also very numerous. Fish abound both in the rivers and along the coasts, and among these the tunny and anchovy are prominent, and in many places fine coral is fished up; oysters also continue to be as plentiful and as celebrated as in ancient times.

121. The Island of Sicily is situated in the Mediterranean, adjoining the southwestern extremity of Italy. It is essentially a mountain country, but with considerable exception. The principal range extends in a direction east and west, nearly parallel to the north coast, with a branch which starts off near the middle of the island and stretches to the southeast, terminating at Cape Passaro. Among these mountains, and sometimes on their very tops, are plains of moderate extent, some of which are nearly 1,000 feet above the sea.

122. The geological formation of the island differs little from that of continental Naples, but the primary formation is of less extent. The predominating rocks are the tertiary and volcanic. On the eastern coast, from a base of 80 miles in circuit, rises the gigantic volcanic cone of Mongibello or Ætna, to the height of 10,871 feet, which has been in activity since the dawn of history. Rich corn fields, intermingled with vineyards and olive groves, fertilized by disintegrated lava washed down its slopes, surround its base. Higher up are mighty forests of oak, beech, ash, and chestnut, succeeded by woods of birch, and beyond the birches trees disappear, and the only shrub is the bivona. Above all there is the region of bare lava and snow. The top of the crater is about two miles in circumference, and when quiescent several hundred feet deep, pouring forth sulphurous vapor from thousands of small openings.



MT. ÆTNA.

123. Sicily is not rich in metals, but the tertiary rocks, so abundant in the island, contain beds of common salt, sulphur, gypsum, alum, and beautifully crystallized sulphate of stronties. Gold, silver, copper, lead, and iron are said to have been worked in ancient times, but at the present day Sicily is chiefly celebrated for its sulphur, and from this source Europe has long been supplied.

124. The Lipari group and numerous detached islands in the Mediterranean also belong to this monarchy. Several of the Lipari islands are volcanic, the northernmost, Stromboli, being in perpetual activity.

125. Agriculture supports the greater part of the population. The chief crops are wheat, maize, cotton, melons, rice, oil, wine, hemp, lint, tobacco, and fruits. The wines of the country are highly esteemed. Silk is also a chief article of production and manufacture. Manufactures, however, are comparatively unimportant, nor is mining carried on to a great extent. The sulphur mines of Sicily are exceptions, and these employ about 12,000 miners. Some copper, lead, iron, and mercury are also mined. The tunny, anchovy, and coral fisheries employ many of the inhabitants of the coasts.

126. The chief exports are olive oil, silk, hemp, wool, wine, barilla, sulphur, manna, etc., and the imports manufactures of all kinds. Naples, on the continent, and Messina, Palermo, Trapani, and Catania in the island, are the chief seats of commerce. The merchant marine of the whole country in 1854 comprised 12,894 vessels, of an aggregate burden of 249,756 tons, viz., Neapolitan 202,318 tons, and Sicilian 47,438 tons. The arrivals in Neapolitan ports in 1853 amounted to 320,088 tons, and the imports were valued at 80,270,478 francs, and the departures amounted to 297,631 tons, and the exports were valued at 36,717,739 francs. Sicilian commerce amounts to about one third the above amount; but of this no official account is at hand. Internal trade, though facilitated by annual fairs, is greatly hampered by want of means of communication. The only railroad yet completed is that from Naples to Salerno and Capua, with a branch line to Nola, but there are several others in progress.

127. The Kingdom of the Two Sicilies is a hereditary monarchy, which, from the absence of efficient constitutional checks, makes a very near approach to despotism. Previous to 1837 the two kingdoms of Naples and Sicily had each a species of council called consulta, but these have since been united in the consulta generale, common to both kingdoms, as all the other political institutions now are. This nominal parliament holds its sittings regularly at Naples, but its privileges are so restricted that all power, legislative no less than executive, virtually centers in the crown. Numerous courts, ascending gradually to a supreme court of cassation, have been erected for the administration of justice, and are said to administer it with impartiality when questions to be decided are strictly private; but when they happen to have a political bearing, the judges are too apt to become the mere tools of the court. Indeed, it is beyond a doubt that in regard to political liberty and political justice no country stands lower in the scale than this Kingdom. The revenue, obtained partly by indirect taxes, but chiefly by an enormous land tax amounting to a fourth of the rent, was estimated in 1854 at 31,930,000 ducats. The public debt amounted to 121,872,000 ducats.

128. The army consists altogether of 143,586 men, of which number 92,586 constitute the active force, and 51,000 the reserve. The active army is divided into infantry, comprising 65,306 men, cavalry 6,000 horses and 6,736 men, artillery 1,347 horses and 6,322 men, and engineers 288 men, and is raised partly by conscription and partly by voluntary enlistment. The navy consists of 2 line-of-battle ships, 5 frigates, 2 corvettes, 5 brigs, 2 golettas, and 24 steam frigates, besides which there are numerous small steamers and sailing vessels—in all 98 vessels. The total battery amounts to 832 guns.

129. The state church is Roman Catholic, and is presided over by 23 archbishops, 98 bishops, 410 abbots and priors, about 60,000 secular priests, and 70,000 monks and nuns. Public instruction is entirely in the hands of the clergy, but primary education is so much neglected that the lower classes generally are extremely ignorant and bigoted. In all the principal towns, however, there are lyceums for preparatory and classical studies, universities at Naples, Palermo, and Catania, and numerous professional schools. The Kingdom is also rich in libraries and museums of art and antiquities; and Naples has a deaf and dumb school.

130. For administrative purposes the Kingdom is divided into provinces as follows:

Provinces.	Area, sq. m.	Pop. (1854).	Capitals.	Popula.
Napoli (Naples)	362	860,252	NAPOLI	417,824
Lavora, Terra di	2,503	776,287	Caserta	25,780
Principato-Citra	2,271	574,550	Salerno	18,892
Principato-Ultra	1,413	393,874	Avellino	15,586
Basilicata	4,163	518,333	Potenza	12,362
Capitanata	2,948	329,541	Foggia	20,687
Bari, Terra di	2,367	531,512	Bari	21,373
Otranto, Terra di	2,883	427,275	Lecce	14,450
Calabria-Citra	2,631	450,935	Cosenza	9,412
Calabria-Ultra I.	2,203	327,620	Reggio	16,822
Calabria-Ultra II.	2,072	388,487	Catanzaro	13,598
Sannio or Molise	1,785	376,750	Campobasso	8,330
Abruzzo-Citra	1,248	319,677	Chieti	13,679
Abruzzo-Ultra I.	1,245	236,931	Teramo	12,192
Abruzzo-Ultra II.	2,528	231,331	Aquila	8,714
Sicily. Palermo	1,993	536,541	PALERMO	167,222
Sicily. Messina	1,892	380,279	Messina	97,074
Sicily. Catania	1,769	407,527	Catania	88,196
Sicily. Siragosa	1,487	251,387	Siragosa	16,217
Sicily. Caltanisetta	1,195	183,776	Caltanisetta	16,563
Sicily. Girgenti	1,380	248,526	Girgenti	17,767
Sicily. Trapani	1,364	200,356	Trapani	24,330

—making a total of 43,201 square miles, and a population of 9,051,747, or 209.5 to the square mile. The continental portion has an area of 32,621 square miles, and 6,843,355 inhabitants, or 209.7 to the square mile, and the Island of Sicily contains 10,580 square miles and 2,208,392 inhabitants, or 208.7 to the square mile.

131. Napoli or Naples, the capital of the Kingdom, and one of the largest cities of Europe, is situated on the north shore of a beautiful bay opening to the west, in latitude 40° 52′, and longitude 14° 15′. Its site is magnificent, rising as it does from the sea on an amphitheatric slope, bounded on the west by the picturesque heights of Pausilippo and on the east by the lofty tops of Vesuvius, while the surrounding country, rich in natural beauties, derives additional attractions from the numerous villas and other objects with which human art has embellished it.



NAPLES AND VESUVIUS.

132. Naples is neither surrounded by walls nor regularly fortified, but is defended by three forts or castles—St. Elmo, Nuovo, and Dell' Ovo. The great mass of buildings of which the city consists forms an irregular oblong, in length about three miles, and in width about one and a half, with a circuit of eight miles. By including the suburbs, however, the circuit would be nearly doubled. Of the gates, some of which are now near the center of the city, that of Capua, is the only one deserving of notice. The streets are tolerably regular, generally clean, and paved with blocks of lava, but they are for the most part narrow; and the houses are large, substantial and lofty, with balconies, and the roofs, covered with a composition of puzzolana, are adorned with shrubberies. The squares are numerous, but small and of irregular form. The largest and handsomest is the Largo di Palazzo, chiefly occupied by

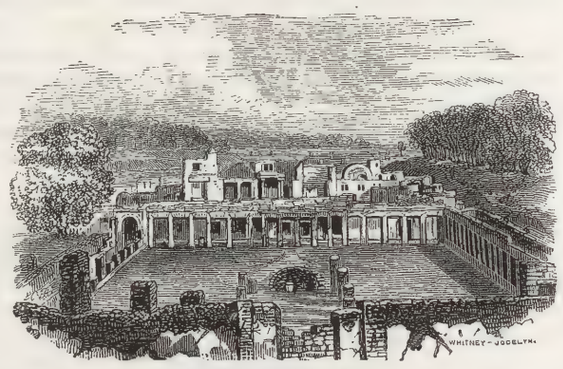
the palace and a large modern church, to imitate that of St. Peter at Rome. Many fountains, some highly adorned, are scattered over the city; and fine promenades are furnished by several of the quays along the shore.

133. The public edifices are not remarkable, but many of the churches are gorgeous and richly decorated. Museums, libraries, collections of art and antiquity, theaters, etc., are numerous. The Museo Borbonico contains a valuable library of 150,000 volumes and many rare manuscripts, and with its collection of gems, bronzes, vases, etc., chiefly from Pompeii and Herculaneum, is a museum of which any nation might be proud. The principal educational institutions are—the university, which is attended by 1,500 students, the royal lyceum, the observatory, and the military, naval, veterinary, musical, medical, and other schools. The benevolent endowments include several large hospitals and institutions for the poor, foundlings, orphans, etc.

134. Manufactures are much more numerous than important. At the head of them stands that of maccaroni and vermicelli, constituting the principal food of the great body of the people; next to it are silk stuffs, and especially the "gros de Naples." The other leading articles are fire-arms, porcelain, tobacco, castings, lace, gloves, carriages, musical instruments, and woolen, linen, and cotton cloths. Notwithstanding the large extent of the bay, the actual harbor is of small dimensions, consisting of a mole which projects nearly from the center of the city, and at which the water, though deep at its outer extremity, shallows so much near the town as to float only small vessels.

135. Naples, at first called Parthenope, is of very ancient date, and was founded by a colony of Greeks who had settled at Cumæ. It afterward became Neapolis, and was indebted to Adrian and Constantine for numerous embellishments, and became a luxurious retreat to which many of the wealthier Romans were accustomed to resort.

136. To the southeast of Naples and at the foot of Mount Vesuvius are the ancient cities of Herculaneum and Pompeii, buried under the ashes ejected from the mountain during the memorable eruption in the year 79 A. D., and only discovered and partially excavated in the course of the last century. Herculaneum lies five miles from Naples, immediately adjacent to the eastern shores of the bay, and is still partly covered by the large modern village of Resina. Pompeii is situated farther to the southeast, 12 miles distant from Naples; a great part of it has been cleared from the ashes under which it had so long laid buried, and it exhibits to view a full picture of what a Roman city was—temples, theaters, baths, private habitations, the shops of the different trades, the implements of handicraft, and even the material upon which these were employed. The modern town of Torre Delle Annunziata is in the close vicinity.



RUINS OF HERCULANEUM.

137. The other towns in the continental part of the Kingdom are all of very inferior importance to the capital. Capua, on the Volturno, 18 miles north, is situated in the midst of a highly fertile district, and is a strongly fortified place; it is partly built out of the ruins of the ancient city of the same name, at two miles distance, and of which some remains still attest the importance. Gaeta, on the coast farther to the northward, is a place of some trade, with an excellent harbor. Salerno, on the gulf so called, to the southeast of the Bay of Naples, is an important commercial city, and noted for its ancient school of medicine. Amalfi, a place of great trade during the middle ages, but now entirely decayed, stands on the south side of the rocky tongue which divides the Gulf of Salerno from the Bay of Naples.

138. Taranto, the ancient Tarentum, at the northeast corner of the gulf to which it gives name, is a small commercial city with extensive salt marshes in its vicinity. Reggio, ancient Rhegium, on the east side of the Strait of Messina, and nearly at the southern extremity of Italy, is a place of considerable trade, and is memorable in connection with the history of St. Paul (Acts xxviii. 13).

139. Palermo, the chief city of Sicily, is finely situated on the north coast of the island, and is the seat of an active commerce. It is a spacious and well-built city. Messina, at the northeast corner of the island, and on the west side of the strait that divides it from the mainland, though a smaller city than Palermo, is fully equal to it in commercial importance. Its harbor is one of the finest in Europe, and its environs are the best cultivated and the most thickly inhabited part of Sicily.

140. About 40 miles southwest of Messina is Mount Ætna, near the foot of which, on the east coast, is the sea-port of Catania, which has some silk manufactures, and is of considerable commercial importance, though it has frequently been overthrown by earthquakes. Thirty miles farther south is Siragosa or Syracuse, a small commercial town built among the extensive ruins of ancient Syracuse, one of the most flourishing sea-ports of antiquity. Marsala, a considerable sea-port at the western extremity of Sicily, is celebrated for the wine called by its name, in the export of which it carries on a great trade; and 18 miles to the north is Trapani, a busy commercial town, the inhabitants of which are largely engaged in the coral fishery.

141. At a very early period both Naples and Sicily were colonized by the Greeks, and subsequently were annexed to the Roman monarchy. On the dissolution of that Empire, both countries were overrun by hordes of barbarians, and passed successively under the domination of the Goths, Lombards, Arabs, and Normans. In more modern times also they have been subject to numerous vicissitudes. In the early part of the sixteenth century they came into the possession of Spain, and in 1734 were erected into an independent monarchy, in favor of Charles of Bourbon. The French Revolution now broke out and established its ascendancy at Naples, forcing the king to seek asylum in Sicily; and in 1806 the crown of the Two Sicilies was given to Joseph Bonaparte, brother of the emperor, and on the removal of Joseph to Spain, to Murat, his brother-in-law. During Napoleon's reverses, Murat sought to secure his kingdom by abandoning him, but by subsequent proceedings lost both his crown and life. On the 17th June, 1815, Naples having surrendered to the British fleet, Ferdinand returned from Sicily, and reascended his throne under the title of Ferdinand I. of the United Kingdom of the Two Sicilies. Both kingdoms are now under a single administration and subject to the same institutions.

[*Weights, Measures, and Moneys.*—The denominations differ in the two sections of the Kingdom.

WEIGHTS.—The libbra (Naples) of 12 once = 320.76 grammes or 0.70728 lb. avoirdupois, and the rottolo = 891 grammes or 1.96457 lb. avoirdupois; 150 libbras = 1 cantaro piccolo, and 100 rottoli = 1 cantaro grosso. The "libbra" (Sicily) = 317.49 grammes or 0.70009 lb. avoirdupois, and 2¼ libbras = 1 rottolo sottilo, and 2¼ = 1 rottolo grosso; 100 libbras or rottoli = 1 cantaro, sottilo or grosso.

MEASURES.—The "canna" (Naples) of 8 palmi = 2,109.36 millimetres or 2.30686 yards; 7,000 palmi = 1 stadio; and the "canna" (Sicily) = 1,942.27 millimetres or 2.1246 yards; 3 palmi = 1 braccia. The "carro" (Naples) of 2 botti, 24 barili or 1,440 caraffi = 610.7024 litres or 161.34 gallons; and the salma (Sicily) of 8 quartari or 96 quartucci = 92.4166 litres or 24.42 gallons; 12 salma = 1 tonna. The "carro" (Naples) of 36 tomoli = 1,999.6 litres or 56.74 bushels, and the salma (Sicily) of 4 bisacci or 16 tomoli—generale = 276.2 litres or 7.83829 bushels, and—grossa = 344.1 litres or 9.75424 bushels.

MONEYS.—Naples accounts are in the ducato di Regni of 5 tari, each of 2 carlini, or of 100 grani, each of 10 cavalli; and Sicily in the onza of 30 tari, each of 20 grani; 3 ducats = 1 onza. Gold is coined into oncetta of 3 ducats, and also into 2, 5, and 10 oncetta pieces; the oncetta weighs 58.5 grains Troy, 996 fine, and is valued at $2 51. The chief silver coins are the ducato di Regni of 10 carlini and the scudo of 12 carlini. The carlini weighs 36.1 grains, 833 fine, and is worth $0.08103, and hence the ducato = $0.8103 and the scudo = $0.97236.

MALTESE ISLANDS.

142. THIS group of islands, consisting of Malta, Gozo, and Comino, is situate in the Mediterranean, between latitudes 35° 45′ and 36° 6′ north, and longitudes 14° 9′ and 14° 36′ east from Greenwich, about 63 miles southwest of Cape Passaro, in Sicily, and extends, in a line northwest and southeast, a length of 28 miles, being divided by two straits which are separated by Comino, the central island.

143. Malta, the largest of the islands, is of an irregular oval figure, about 17 miles in length, and from 8 to 9 in breadth, with an area of 98 square miles. It is composed of calcareous rocks, which slope like an inclined plain from the level of the sea toward the south and east, where they attain the elevation of nearly 600 feet. The surface is composed of small valleys, defiles, and hills, which extend across the breadth of the island. In most places the rock is entirely naked, except where industry has placed over it a layer of traveled earth, brought originally from Sicily and Africa.

144. Gozo, the most northerly island, is more elevated than Malta, and is entirely surrounded with almost perpendicular rocks, the highest of which are to the west and south, where they are very steep. Length 9 miles, and breadth from 4 to 5 miles. The surface is not so uneven as that of Malta, and is consequently more easily cultivated.

145. Comino is a small island, two miles in length, between Malta and Gozo, and partakes most of the character of the latter. The two channels which it forms have from 12 to 20 fathoms water, and are safely passable by the largest ships in mid-channel.

146. The total area of the group is 219 square miles. The greater part of the land in Malta is planted with cotton; it also produces wheat and barley. Both Malta and Gozo produce fruit of excellent flavor, and flowers of great beauty. Bees are kept in large numbers. Horses, cattle, asses, and sheep are very fine, and constitute a large portion of the wealth of the islanders. The coast fisheries are extensive.

147. The population in 1851 amounted to 128,361. The Maltese are a mixed race, principally Italian and Arabic, and their language is of the same composition. The mercantile and higher classes, however, speak Italian, and the English, which is the official language, is generally understood. The natives are a robust, active, and temperate people.

148. The government is vested in a governor and council of seven appointed by the British sovereign. Most of the inhabitants are Roman Catholics, there being less than 5,000 Protestants. Education is being rapidly diffused through the efforts of the government, but still the great bulk of the inhabitants can neither read nor write.

149. The commerce of these islands is considerable, and manufactures consist chiefly of cotton goods, cabinet work, and jewelry, which are largely exported to Greece and the Ionian Islands. The central position of this group in the Mediterranean makes it, particularly in war, an important commercial depôt, and at all times an invaluable naval station. It has, in consequence, received great attention from the British, and been provided both with excellent docks and fortifications.

150. The capital of these islands is Valetta, on the northeast coast of Malta. It is built on a tongue of land extending into a bay, so as to form a splendid harbor on each side, where also the projecting points are occupied by towns and forts, the city itself being surrounded by impregnable fortifications. The streets are narrow and steep, but contain some splendid buildings, which attest the magnificence and the devotion of its former masters, the Knights of St. John, to whom the island was given by the Emperor Charles V., after they had lost Rhodes. Citta Vecchia is situate near the center of the isle, and contains a large cathedral and several other churches. It stands on such high ground that on a clear day the whole island and the coasts of Sicily and Africa may be seen. The catacombs are very extensive and of great celebrity. Besides these places, the island contains 22 casals or villages.

151. Near the western part of the north coast is the Calle de San Paulo, or haven where St. Paul is said to have landed after his shipwreck; but some critics consider the island of Meleda, on the Dalmatian coast, to have been that on which the apostle was cast. The island of Gozo contains six casals or villages, and a fortress on a rock 300 yards in diameter in the interior of the island.

152. The Maltese Islands were held by the Knights of St. John until 1798, when that order was dispossessed by the French. Valetta surrendered to the British in 1800, after a two years' blockade, and was confirmed to that nation at the peace of 1815.

[*Weights, Measures, and Moneys.*—The British system is in use at the public offices. The native are—

WEIGHTS.—The "lira" of 12 once = 316.5 grammes or 0.69786 lb. avoirdupois; 250 lb. = 100 rottoli = 1 cantaro.

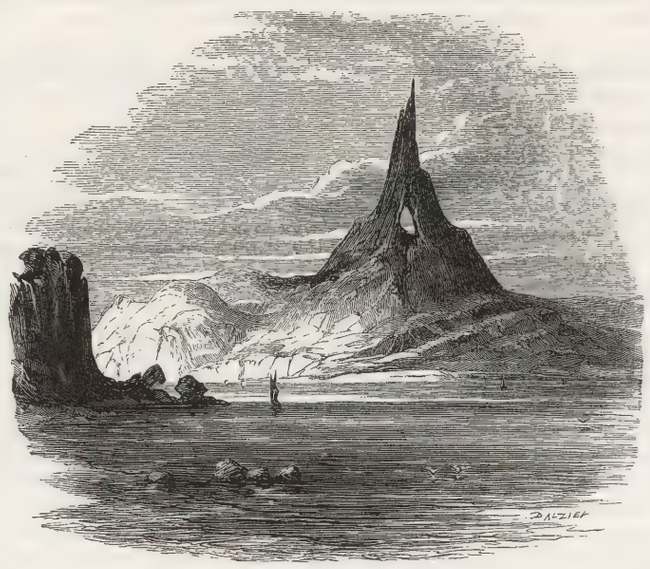
MEASURES.—The "canna" of 8 palmi = 2.08 metres or 2.31 yards. The barile (wine) = 43.5 litres or 11.49 gallons. The caffiso (oil) = 20 litres or 5.28 gallons, and 2 = 1 barila. The salma of 4 sacchi = 287 litres or 8.14 bushels.

MONEYS.—Accounts are stated in scudi, of 12 tari, each of 20 grani; 2½ scudi = 1 pezza or Sicilian dollar.]

KINGDOM OF NORWAY.

1. Norway occupies the western portion of the Scandinavian peninsula,* and lies between latitudes 57° 58′ and 71° 12′ north, and longitudes 4° 48′ and 31° 15′ east from Greenwich. It is bounded on the north by the Arctic Ocean, on the east by Russian Lapland and Sweden, on the south by the Skager-Rack, and on the west by the North Sea and Atlantic Ocean. Taking North Cape and Lindesnaes as the opposite extremities of the Kingdom, the length is about 1,080 miles, and the greatest width 275 miles; and the area is 123,228 square miles.

2. The coast consists for the most part of bold, precipitous cliffs, and is remarkable both for the innumerable islands by which it is lined, and the bays or fiords which cut deeply into it in all directions. The number of islands makes the navigation dangerous; but the fiords give it unusual facilities—not only making it easy to penetrate into the interior, but also furnishing an almost uninterrupted series of natural harbors of refuge. The principal islands off this coast are the Loffoden, a mountainous group, about 20 to 40 miles distant from the northwest shore, and inhabited by fishermen.



MOUNTAIN OF THE KILHORN, IN NORRLAND.

3. The interior is very mountainous, particularly in the west and north, where the summits are often lofty, and rise very abruptly from the surrounding levels. But even there mountain chains, properly so called, have no existence, and the true character of the surface is that of a series of elevated plateaux, from which mountain masses rise with the greatest irregularity.

4. The plateaux referred to admit of being reduced to six: 1, the plateau of Finmark, the most elevated summits of which are situate in the vicinity of the Lake Torneä-Troesk, near the gulfs of Lyngen and Quevenangen; 2, the plateau of Norrland and Trondhjem, extending to the Gulf of Trondhjem and Lake Storsjön, the loftiest summits being in the vicinity of the icy mountain of Sulitelma, 6,178 feet high; and in this plateau is the remarkable mountain of Kilhorn, shooting up in a pyramidal form, with a bare, jagged, and sharp peak, and a strange perforation at about three fourths of its height; 3, the Dovre-field plateau, with its Sneehæten (8,120 feet) and Skrimkolla, Stenkolla, and Nunsfeld, the lowest of which is nearly 7,000 feet; 4, the plateau of Langfeld, from which the loftiest summits of Norway rise, as Skagastölstind, 8,390, Galdhöppigen, 8,785 feet high, and the mountain of Hornelen (*see* over), a curious isolated mass, forming the eastern extremity of the island of Bremanger, which lies at the entrance of Vaags Fiord, in latitude 61° 45′ north; 5, the plateau of Fillefeld, much less elevated than those already mentioned, about 6,000 feet high in the east, and sloping toward the Skager-Rack and the German Ocean; and, 6, the eastern plateau, lying still more in the direction of the general slope and continued into Sweden, where its direction may be traced by the chain of lakes which stretches across that country.

5. In general, however, the country is rugged; the valleys are short and abrupt, and the streams dashing down impetuously through rocky gorges, form numerous cascades; while the fiords, overhung by lofty precipices or lowering forests, and the deep and extensive lakes embosomed among the mountains, furnish Alpine scenes of the wildest magnificence.

6. Norway can not claim any large river exclusively its own, and the few of them that are of any importance have a southerly direction, in accordance with the general slope, and discharge themselves into the Skager-Rack. Of these the most deserving of notice are the Glommen and its affluent the Lougen, and the Beina, the Lauven, the Skien-Nid, and the Torrisdal. The most important rivers in the north are the Tana, which forms part of the boundary between Norway and Russia, and falls into the Arctic Ocean, and the Namsen, which falls into the Atlantic. The same causes which prevent Norway from having large rivers, are favorable to the formation of lakes—the isolated bases of the mountains forming numerous and extensive reservoirs, in which the waters are in the first instance accumulated, and accordingly they are scattered over every part of the country.

7. The prevailing rocks of Norway are gneiss and mica-slate, of which all the loftier mountains are composed. Granite is comparatively of rare occurrence. On some of the plateaux blocks of conglomerate occupy a large part of the surface. Porphyry, argillaceous schist, and limestone occur, but in very limited quantities; and rocks of volcanic formation are so rare that their existence was at one time altogether denied.

8. That the climate of Norway must, on the whole, be severe, seems necessarily to follow, both from its high latitude and the elevation of its surface. Nearly one third of the whole country is situated within the frozen zone, and a large share within the region of perpetual snow. Various causes, however, contribute to modify the temperature, and make it milder than could be anticipated in the circumstances. One of these is the great extent of sea-coast, and the large extent of surface occupied by water, and, moreover, the influence of the Mexican Gulf Stream is sensibly experienced on the west coast. Hence, in consequence, the harbors are never blocked up by ice; while in places more inland, though much farther south, as at Christiania, this regularly happens. The mean temperature at North Cape, latitude 71°, at Trondhjem, latitude 63½°, at Ullensvang, latitude 60°, and at Christiania, latitude 60°, is—in winter 23°, 24°, 30°, and 41°, and in summer 44°, 59°, 60°, and 60° Fahr.; and the mean annual temperature is 32°, 40°, 45°, and 42° respectively.

9. The large portion of the country situated within the limits of perpetual snow, and the sterile and rugged nature of a still larger portion, greatly limits the range of vegetation and of regular culture. In general, however, the mountain slopes, up to a certain height, are clothed with magnificent pine forests; and at lower elevations the oak and beech are by no means uncommon. Where, from the combined causes of a high latitude and great elevation, the ordinary pasture grasses become scanty, mosses supply their place, and furnish a valuable source of subsistence, and even of wealth, in the numerous herds of reindeer they maintain.

10. The quantity of land that might be brought under culture has been roughly estimated at one sixth of the whole, yet not more than a hundredth part is under actual cultivation. Most of the land thus cultivated is of a light sandy texture, which, even under good management, could not yield heavy crops, and under the system pursued by the Norwegians often fails to return much more than the seed. The most extensive branch of rural industry is the rearing of cattle, for which many parts of the country are well adapted. The breeds, however, are inferior and little improved. Sheep are less numerous than goats, and yield a coarse, though abundant wool. The horses are vigorous and sure-footed, but of a diminutive size; and the ponies of Norway are in much demand in foreign countries.

11. Another domestic animal of great value is the reindeer, which forms the principal stock in the north provinces. Many of these animals are also found in the wild state. Among other wild animals are the wolf and bear. Deer, once abundant, have become comparatively scarce; but game of the smaller kinds exists in great variety, and includes vast numbers of water-fowl. Among birds of prey the eagle occupies the first place. The seas abound with fish—the cod and herring being exceedingly numerous; and occasionally the whale appears off the coast. The rivers and lakes are abundantly supplied with salmon and salmon-trout, and make Norway one of the best angling countries in the world.



REINDEER.

12. Minerals are both numerous and abundant. The most important are iron, copper, silver, and cobalt. The only others worthy of notice are chrome, alum, and marble. The resources of Norway, in regard to mineral wealth, are by no means so ample as those of Sweden; and there is otherwise much to support the inference that Norway can never become an equally prosperous Kingdom with its thriving sister state.

13. From what has already been said, it is evident that Norway is more a pastoral than a grain-growing country, and its chief wealth lies in its livestock. Among the crops cultivated for food, the first place is due to barley, which ripens as high as 70° north latitude; rye is successfully cultivated up to 69°; oats to 68°, but wheat not beyond 64°, and that only in the most favorable seasons. Potatoes are grown with success even in Finmark; and hemp and flax, particularly the latter, are generally cultivated, while in the south some tobacco is grown. Fruit, particularly the apple, pear, and cherry, is also grown in the south and central districts. The forests afford valuable timber, and where the means of transport exist, mining can be profitably pursued on account of the abundance of fuel. The fisheries are valuable.

14. Manufactures have made very little progress. Cotton, woolen, flax, and silk tissues are made to some extent, but only for home use. Distilleries, brick-yards, and saw and other mills are numerous; and there are several large tobacco factories and sugar refineries.

15. The export trade is necessarily confined to raw produce. The principal articles are fish—smoked and dry, timber, whale and seal oil, metals, skins of wild animals, feathers, furs, etc. The imports consist chiefly of grain and salted provisions, various tissues of wool, cotton, flax, and silk, tropical productions, wines and spirits, etc. This trade is chiefly concentrated in the towns of Bergen, Christiania, and Trondhjem, and to a less extent in Drammen, Christiansand, and Arendal. The merchant marine in 1855 consisted of 3,772 vessels of all sizes, carrying 191,544½ lastes. The foreign trade in 1854 employed 10,312 outgoing vessels (399,309 lastes), and 10,599 incoming vessels (431,479 lastes); and the exports were valued at 116,535,000 and the imports at 71,442,000 marks. The exports are chiefly carried to England, France, Sweden, Holland, Denmark, and Prussia; and the imports come from Denmark, England, the Free Cities, and Sweden. There is also a considerable overland trade between Sweden and Norway.

16. Norway is a limited hereditary monarchy, united with Sweden as a free, independent, indivisible kingdom, under one common male sovereign of the Evangelical Lutheran religion, declared to be the religion of the state. The sovereign is responsible only through his min-

* The Scandinavian peninsula, on the northwest side of Europe, extends between latitudes 55° 20′ and 71° 12′ north, and between longitudes 4° 48′ and 31° 15′ east from Greenwich. Except on the northeast, where it is joined to Russian Finland by a comparatively narrow isthmus, it is entirely surrounded by water—on the north by the Arctic Ocean; on the east by the Baltic; on the south by the Baltic, the Sound, the Kattegat, and the Skager-Rack, and on the west by the Atlantic Ocean and the North Sea. Within these limits is comprised one great geographical region, and as such it might claim a single description. For the sake of convenience, however, its geography is in this place described in two sections, corresponding in limits with those of the political bounds of the countries into which it is divided, viz., Norway and Sweden.

istry; but as he resides in Sweden during the greater part of the year, though bound to a partial residence in Norway, he places at the head of the government a viceroy and stadtholder, one or both subject to the somewhat unusual regulation that they must be foreigners. The ministry is composed of seven councilors, each at the head of a separate department, and of a president, or minister of state. The latter, together with two councilors, who are annually changed, reside with the king in Sweden; while the remaining five, and the viceroy or stadtholder, must remain in Norway. On a new accession, the sovereign must be crowned King of Norway at Trondhjem.

17. The Storthing, or legislative assembly, is elected by the citizens possessing a certain qualification, and exists for three years. It subdivides itself into two chambers—one, consisting of one fourth of the members, and called the Lagthing, and the other of the remaining three fourths, and called the Odelsthing. These chambers meet separately. Every bill must originate in the larger assembly, but may be proposed either by the members or the administration. When carried, it is sent to the smaller assembly, and thence to the sovereign, whose assent makes it law. If the lagthing disapprove of the bill, they must return it with their reasons for disapproval to the odelsthing. If carried there again, with or without modification, it comes as before to the lagthing. If the lagthing reject the measure a second time, the whole storthing meet in one chamber, and the final adoption or rejection is determined by a majority of two thirds. The veto of the king is subject to a very important limitation, as it becomes ineffectual against any measure which has been adopted without modification by three successive storthings or parliaments.



MOUNTAIN OF THE HORNELEN.

18. The land force of the Kingdom in 1855 consisted of 22,484 officers and men. Of these 14,324 comprised the regular army (11,924 infantry, 1,070 cavalry, and 1,330 artillery), and 9,160 the landwehr or militia. The navy at the same period consisted of three frigates (one steam), 5 corvettes (2 steam), and 4 bomb-ships (1 steam), besides 125 gun-boats and 5 armed steamboats—in all 142 vessels, carrying about 450 guns.

19. The public debt of Norway in 1854 amounted to 4,384,300 specie dollars. The annual receipts for the years 1855, '56, and '57 were estimated at 3,556,000 specie dollars, of which 2,100,000 would be derived from customs.

20. As already stated, the Lutheran is the religion of the state, and is professed by the great body of the people. The country is divided into five stiften or dioceses, corresponding in name and extent with the administrative provinces, and into 813 parishes. Every other form of religion is tolerated, but the government offices are filled only by members of the established church.

21. Education is very generally diffused, and gratuitous elementary instruction is placed within the reach of all; and all children of seven years in towns, and of eight in country, are required to be in attendance at school till confirmation, which usually takes place between the ages of 14 and 17 years. The schools designated by the name of almue skoler, or people's schools, are stationed in all towns and parishes; these are elementary schools. Towns possess in addition what are called middle schools, middle and royal schools, burgher schools, and Latin or learned schools, in which superior instruction is given. There are also cathedral schools in Christiania, Bergen, Trondhjem, and Christiansand. At the head of all the educational establishments is the University of Christiania. The system thus established, and which is supervised and supported by the government, has produced the happiest results, and Norway ranks high among educated nations.

22. Norway, for administrative purposes, is divided into stiftens and amts:

Stiften and Amts.	Area, sq. m.	Popula. (1855).	Capitals.	Popula.
CHRISTIANIA OR AGGERHUUS:				
Smaalehnen	1,669	84,416	Frederickshall	7,408
Aggerhuus	2,012	95,961	CHRISTIANIA	88,958
Hedemarken	10,345	101,393	Kongsvinger	509
Christiania	10,441	115,149	Lille-hammer	853
Buskerud	5,771	90,343	Drammen	9,916
Jarlsberg and Laurvig	889	73,223	Laurvig	4,016
Bradsberg	5,405	76,546	Skien	3,211
CHRISTIANSAND:				
Nedenaes	4,622	59,112	Arendal	2,427
Mandal and Lister	2,065	67,370	Christiansand	9,521
Stavanger	3,527	91,539	Stavanger	11,717
BERGEN:				
Söndre Bergenhuus	5,805	104,762	Bergen	25,797
Nordre Bergenhuus	6,743	81,496	Leganger	812
Romsdal	6,025	90,283	Christiansund	2,977
TRONDHJEM:				
Söndre Trondhjem	7,189	96,304	Trondhjem	16,012
Nordre Trondhjem	8,806	73,571	Levanger	817
TROMSOE:				
Nordlanden	14,611	77,355	Alstahvug	1,532
Finmarken	27,303	54,665	Tromsoe	1,096
Total	123,228	1,438,488		

—in 1815 the population was 885,430; in 1825, 1,051,318; in 1835, 1,194,826; in 1845, 1,328,471, and in 1855 as above—the decennial increase having been at the rate of 18.7. 13.6, 10.1, and 7.9 per cent. respectively. This decreasing ratio is attributable to an accelerated emigration. The females are in excess of the males in the proportion of 76 to 73.

23. Christiania, the capital, is most picturesquely situate at the head of the Christiania Fiord, in latitude 59° 54′ north, and longitude 10° 45′ east. The town is regularly laid out, and generally well built of stone or brick. The adjacent old town, Opslo, and other suburbs, are mostly constructed of timber. The principal buildings are—the Cathedral, the Citadel, one of the chief fortresses and the great arsenal of the Kingdom, the royal residence, military and lunatic hospitals, the new Town-hall, the Exchange, two theaters, and the University, established in 1811, having usually about 600 students and with a library of 130,000 volumes. Besides these there are various public schools, museums, an astronomical observatory, and a botanic garden. The manufactures consist chiefly of woolen fabrics, tobacco, hardware, paper, etc., and it has numerous breweries and distilleries. Its trade is considerable; and its deals, which are in high repute, fish, and other northern produce, are largely exported.

24. Frederickshall is situate on a small river near the northeast angle of the Skager-Rack, 58 miles south-southeast of the capital. It is famous for its fortress Frederickstein, at the siege of which Charles XII. was killed. The town is singularly picturesque, with wide and regular streets, and houses mostly of two stories, built since the destructive conflagration in 1759. It has an active trade in timber and iron, and manufactures of linens and tobacco. Drammen, on both banks of the river so called, near its mouth in the Christiania Fiord, consists of two formerly separate villages, Bragernæs and Stromsoe, which are united by a bridge. It is a well-built town, though straggling, and has a college, various other schools, etc.; and has considerable manufactures, chiefly of spirits, carriages, sail-cloth, ropes, tobacco, and earthenware, and an active trade in timber, iron, pitch, and other Baltic produce. Tonsberg, on an inlet of the Christiania Fiord, has a good harbor, and exports timber and fish. Laurvig, on an inlet of the Skager-Rack, is a small town, in which is a national cannon foundery.

25. Arendal, near the mouth of the river of the same name, in the Skager-Rack, is intersected by canals, and has ship-building docks. Near it are extensive iron mines. Its sea trade is very considerable. Christiansand is a fortified sea-port on a fiord of the Skager-Rack, in latitude 58° 8′, and longitude 8° 3′. It is regularly laid out, and built of wood. The principal edifices are the citadel Fredericksholm, a Gothic cathedral, and a cathedral school. The harbor is excellent and secure, and the export trade, principally in timber and lobsters, is extensive. A good deal of ship-building is also carried on. Stavanger, at the entrance of the Bukke Fiord, an inlet of the North Sea, has an export trade in timber.

26. Bergen, a principal naval station, and the second city of the Kingdom, is situate on a peninsula at the end of a deep bay on the Atlantic, in latitude 60° 24′ and longitude 5° 18′. The city is well built and picturesque, rising in the form of an amphitheater, and surrounded by elevated mountains on the land side. The principal buildings and institutions are a cathedral, several other churches, hospitals, and charitable institutions, a theater, a national museum, a diocesan college, naval academy, and other schools, and five public libraries. Its harbor is deep and sheltered, but rocky; and is defended by several forts, which, with the town walls, mount about a hundred guns. Ship-building is extensively engaged in; and among its manufactures the most prominent are earthenware, tobacco, and cordage. The fishery is, however, the principal employment; and a fleet of small vessels from the northern provinces comes to Bergen in summer, bringing fish, roes, fish-oil, blubber, skins, and feathers, and taking back goods in return. The foreign trade is mostly with the countries of northern Europe. Bergen was founded in the eleventh century, and at an early period became one of the members of the Hanseatic League. Christiansund is situate on three islands in the Atlantic which inclose its harbor. It has an active trade and extensive fisheries.

27. Trondhjem (Drontheim) is a fortified sea-port at the mouth of the Nid, in Trondhjem Fiord. Latitude 63° 25′, and longitude 10° 23′. It is walled, and defended by the fortress of Munkholm, on an island in the fiord. The town is well built, though mostly of wood. It contains a magnificent cathedral of the eleventh century, an asylum for deaf mutes, grammar, Lancasterian, and other schools, a museum, and public library. The roadstead is indifferent, and the river admits only small vessels; but the town has an active export trade in dried fish, deals, tar, and copper.

28. Hammerferst, the most northern town of Europe, and 60 miles southwest of the North Cape, is situate on the Qual-oe (whale island), of which it is the chief port. Latitude 70° 40′, and longitude 23° 35′. Its harbor is protected by a fort. In summer the heat is sometimes oppressive, and throughout the winter the temperature is mild enough for the fishery to be carried on. The foreign trade is comparatively large, and mostly with Great Britain and Russia. Tromsoe is built on the island of the same name, opposite the island of Haval-oe. It has a wooden quay, and is an outport of Hammerfest.

29. The early history of the Norwegians is enveloped in fable; but many circumstances concur in proving their Asiatic origin. The historic period commences with the reign of Harald, or Harfager, who died in 933. His son Erick, surnamed Bloody Ax, was driven from the throne, and found an asylum with Athelstan of England. His throne was seized by his brother, Hako I., who was educated in England, and had embraced Christianity, which he also introduced among his subjects. The first distinguished name which occurs among his successors is that of Magnus I., surnamed the Good, the son of St. Olaf and Alfhild, an English lady. He was called to the throne by election in 1036, and having in 1042 succeeded also to the throne of Denmark, united both under one monarchy. On his death the thrones were again separated.

30. Harold III., the successor of Magnus, is known in history as the leader of an expedition which landed on the English coast, and after pillaging York, was defeated by Harold, son of Godwin, shortly before his own more signal defeat at Hastings. In the twelfth century the Norwegians had carried the terror of their arms to distant lands, and swayed the scepter not over Norway merely, but over many parts of the coasts of Britain.

31. In 1319 the crowns of Norway and Sweden became for a short time united in the person of Magnus V. The next name of importance is that of Erick of Pomerania, who succeeded by separate titles to Norway, Sweden, and Denmark, and in 1397 was formally crowned king of the three kingdoms of the north. The union, however, was never very complete—each state retaining the right to act independently, and accept or refuse the sovereign who might be elected by the others. Sweden again became a separate Kingdom, but the union between Denmark and Norway was drawn closer and closer, very much to the disadvantage of the latter, which was robbed of its rights, and ultimately degraded into a mere dependency of the former. In a diet held at Copenhagen in 1527, during the reign of Christian III., a formal act was passed, declaring that Norway had forfeited its independence. This act was not permitted to remain a dead letter; and the subsequent history of Norway becomes merely a part of that of Denmark.

EASTERN EUROPE

SCALE OF STATUTE MILES.
0 40 80 160 240
200 Geographical or 230.53 Statute Miles, to one inch.
14.495.100 of Nature.

LONGITUDE 117 EAST FROM WASHINGTON.

32. During the wars consequent on the French Revolution, the Danes having leagued themselves with France, the Norwegians were obliged to follow in their policy. They were thus brought into collision with Great Britain, which almost annihilated their trade. When the great coalition to free Europe from French domination was formed, Denmark refused to join it. Sweden pursued a different policy, and stipulated that in event of success Norway should be united with her under one monarchy. After the battle of Leipzig effect was given to this stipulation in 1815, by the treaty of Kiel.

33. The summary manner in which Norway was thus bartered away could not but be exceedingly irksome to its inhabitants, and a determination to resist was soon manifested. At a diet held at Eidsvold, and attended by deputies from all the districts, a limited monarchy with a strong infusion of the democratic principle was almost unanimously adopted as the form of government; and Charles Frederick, who had previously been the Danish regent, accepted the crown. The Swedish king, however. having accepted the constitution of Eidsvold with such slight modifications as the change of dynasty rendered necessary, all resistance to him ceased. His foreign origin and inability to speak the language, notwithstanding his ability and justice, were serious obstacles to his popularity; but these have disappeared in the person of Oscar I., who succeeded in 1844, and having acted as viceroy since 1824, had proved himself not unworthy to govern.

[*Weights, Measures, and Moneys.*—Corn and liquid measures are the same as in Sweden. The following are Norwegian:

Weights.—The "pond" of 16 oz. or 32 lods = 499.13 grammes or 1.10051 lb. avoirdupois; 100 lbs. = 1 centner; 320 lbs. = 20 lisponds = 1 schippond; 4,000 lbs. = 1 laste.

Measures.—The "ale" or ell = 627.88 millimetres or 24.71 inches; 2 ales = 1 ruthe. The meil = 4.68403 miles.

Moneys.—Accounts are kept in marks of 24 schillings; 5 marks = 1 rigsdaler specie or two Danish rigsbank dalers = $1.0526. The currency is almost universally the paper of the Bank of Norway; there is no gold coinage. The silver coins are the specie rigsdaler and its parts, coined at the rate of 8.3-32 rigsdalers to the Cologne mark weight of silver 875 fine. Small money (skillemynt) is minted at a lower standard. The dalers of Norway, Sweden, and Denmark are interchangeable.]

KINGDOM OF SWEDEN.

1. Sweden occupies the eastern portion of the Scandinavian peninsula, lying between latitudes 55° 20′ and 69° 10′ north, and longitudes 11° 40′ and 24° 16′ east from Greenwich; and is bounded north by Finmark and Russia, east by Russia, the Gulf of Bothnia, and the Baltic Sea, south by the Baltic Sea, and west by the Sound, the Kattegat, and Skager-Rack and Norway. The greatest extent of the land north and south is about 975 miles, and the average width thereof about 200 miles. The area, including the islands of the Baltic—Gottland, Oland, Aland, etc.—is computed at 170,099 square miles.

2. The coast-line, above 1,400 miles in length, is very irregular; but its bays and creeks, though very numerous, have neither the width nor tortuous length by which the fiords of Norway are characterized. The west coast is very rocky, but seldom rises as high as 30 feet. Its numerous creeks and the lee of its islands furnish a number of good roadsteads. The south shores, from Cape Falsterbo to Solvitzborg, are low and sandy, and partly encumbered with sand-banks. At Solvitzborg a range of precipitous cliffs begins to appear, and though partly interrupted by low sand-beaches, presents a number of projecting masses rising steeply to the height of 50 feet. In this stretch is the bay and harbor of Carlscrona, finely sheltered by the islands which lie across its mouth. The shore, separated from Oland by Kalmar Sound, is generally low, and in its south part presents almost a continuous line, neither broken by indentations nor lined by islands; but toward its north entrance the configuration changes, and rocky cliffs and islands are seen along the whole coast as far north as the mouth of the Dal. The most remarkable features in this part of the coast are the long and narrow Bay of Braviken and the vast number of islands forming the archipelago of Stockholm, and stretching along the coast north to the entrance of the Gulf of Bothnia, beyond the Aland Islands. The south part of the Gulf of Bothnia presents a succession of moderately elevated shores, alternately rocky and alluvial or sandy; and the whole of its upper part, from the Strait of Quarken northwest to Torneä, is of the latter description.

3. The interior is by no means generally mountainous, and its surface has far less of a highland than of a lowland character. The more elevated portion of it commences in the west, near the parallel of 62°, and is continued north along the frontiers of Norway; not so much in a continuous chain as in isolated mountain masses, rising from an elevated table-land which, where loftiest, is at least 4,000 feet, and forms the base of several summits which rise more than 6,000 feet above the sea-level. Owing to their high latitudes these are covered with perpetual snow. The two loftiest mountains, both of them partly within Norway, are —Sulitelma, in latitude 67°, 6,178 feet, and Sylfjellen, in latitude 63°, 6,486 feet. These mountains and their table-land slope east toward the Gulf of Bothnia, sending down numerous torrents, which in their course often expand and form chains of lakes and dreary swamps. The same slope is continued south of 62°; but besides it there is a south slope, which attains its lowest level near latitude 59°, on the shores of the magnificent lakes which there stretch almost across the country. South of 59° the country is generally flat, though in many parts finely diversified. Its loftiest height, Mount Taberg, to the south of Lake Wetter, is about 1,129 feet; and a considerable part of what is called the table-land of Smaland is 800 feet above sea-level, but the far greater portion is under 300 feet.



SCENE IN SWEDEN

4. The scenery of Sweden derives its grandest features from its rivers and lakes. They all belong to the basins of the Baltic Sea and the German Ocean. To the Baltic belong—the Torneä, which, rising in the Norwegian mountains, pursues its course south-southeast for nearly 300 miles, and falls into the north extremity of the Gulf of Bothnia; the Luleä, Piteä, Skellefteä, and united Windel and Umeä which flow precipitously into the same gulf; the Angermann, which flows 230 miles, and in the lower part of its course becomes so wide and deep that vessels of 600 tons can ascend nearly 70 miles from the sea; and the East and West Dal, which, uniting their streams, receive the discharge of numerous lakes, and pursue a more circuitous course than usual in Swedish rivers. The principal rivers belonging to the basin of the ocean are the Klar and the Gota: the former, issuing from Lake Fämund, on the edge of the Dovre-field Mountains, furnishes Lake Wener with its chief supply of water, and the latter, which may be considered only as its continuation, discharges it into the ocean.

5. The lakes are so numerous and so large as to occupy a considerable share of the surface. They are very important to the economy of the state by furnishing long lines of internal communication, and are also famous for the large quantities of fish they yield. The most important of these lakes are—Lake Wener, next to Ladoga, the largest in Europe, and in length and breadth 55 by 20 miles; Lake Wetter, the next in size, about 80 by 10 miles; and Lake Mälar, on which the capital stands, 60 miles long, with a varying breadth. Other lakes, the magnitude of which entitles them to notice, are—Hielmar, which has both a natural and artificial communication with Lake Mälar; the Silja, formed by an expansion of the East Dal; the Störsjon, out of which the Indal issues; the Horn-Avan, which discharges itself into the Skellefteä; and the Stora-Luleä-Watten, which originates the Luleä.

6. Almost the whole of Sweden, throughout its length and breadth, is composed of gneiss, partially penetrated by granite. Patches of porphyry and greenstone, of silurian rocks, of oolite, and of cretaceous rocks appear in localities. The minerals include gold, silver, copper, cobalt, lead, iron, etc. Copper is smelted chiefly in Falun, and cobalt is procured principally in the rich mines of Orebro. Iron of the finest quality is found in exhaustless abundance. Iron, indeed, not only occurs in beds of vast thickness, inclosed in strata of gneiss, but forms the principal mass of whole mountains. In Swedish Lapland some seams are from 3 to 4 fathoms, others from 14 to 15 fathoms in thickness, while others attain the immense thickness of 34 and 38 fathoms. These Lapland ores, however, have proved of little economical value, the scarcity of fuel rendering smelting very expensive, and otherwise the iron obtained is brittle and of inferior quality. Mount Taberg, to the south of Lake Wetter, forms another of the enormous mountain-masses of iron, but the ore, otherwise of good quality, contains only about 25 per cent. of metal. The most celebrated mines are those of Danemora, in Upsala, where the iron worked is perhaps the best in the world, and being admirably adapted for steel, is in great demand for that purpose. The quantity produced, however, is very small—about 4,000 tons annually. Much larger quantities, also of excellent quality, are produced in Falun, Gefle, Westeräes, Carlstad, and Oerebro. The most valuable quarries are those of porphyry, which takes on a fine polish, and is extensively used in ornamental work.

7. The north part of Sweden, being also the most elevated, has naturally a rigorous climate, though several causes concur to modify and mitigate its rigor. At Enontekis (latitude 68° 30′) the annual mean temperature is 27° Fahr., or 5° below freezing-point. This mean, though low, is far above that of places on the same latitude situated farther east. In lower latitudes the advantage is still more favorable to Sweden, particularly in winter. Thus, at Stockholm, the mean temperature of winter is 29½°, whereas in St. Petersburg it is less than 22° Fahr. Compared with places farther west, Sweden loses its advantage. At Stockholm the thermometer, which never reaches zero at Edinburgh, has been known to descend 26° below it in January, and to rise in July to the almost tropical heat of 97°. The climate, however, is eminently favorable to health, and no country furnishes more numerous instances of longevity.

8. The true forest-lands of Sweden are found south of the 64th parallel. North of this line pine, firs, and beech trees are only seen in patches, and where the surface is not very elevated. Below it, and chiefly in the central and south parts of the Kingdom, the forests cover at least a fourth part of the surface, and sometimes stretch continuously for 70 or 80 miles, and in breadth 20 miles. Forests, in which oak and beech are the prevailing trees, occur only in the south. Of the available surface not clothed in forest, the far greater part is either natural or artificial meadow. The quantity of arable land is very limited, not exceeding 4,000 square miles, and much even of this is of indifferent quality.

9. Among the larger wild animals found in Sweden, the wolf and bear abound in the forests, and often commit great ravages. The elk and deer are also found, but in more limited numbers. Of the smaller animals, the most destructive is the lemming, which, at intervals of years, descend in immense numbers into the low country and lay it waste. Among birds, the most remarkable are eagles, capercailzies, and woodcocks. The rivers and lakes are well stocked with salmon and trout; but the fisheries on the sea-coast have long ceased to be productive. The herring, which used to visit the Baltic in large shoals, have almost entirely disappeared.

10. The population of Sweden in 1855 was 3,641,600, or 21.4 to the square mile. In 1810 it was only 2,377,851; in 1820 it was 2,584,690; in 1830 it was 2,888,082; in 1840 it was 3,138,884; and in 1850 it was 3,482,541—the decennial increase from 1810 to 1850 having been at the rates of 8.7, 11.9, 8.6, and 9.8 per centum respectively. Assuming an increase of 10 per centum between 1850 and 1860, the population in the latter year will be 3,830,795; and it will require a similar rate until 1875 to duplicate the population of 1810—or in other words, Sweden doubles its population in 65 years.

11. Until lately Sweden was obliged to import a considerable part of its whole consumption of grain; but in consequence of improvements in the system of agriculture, and the bringing into cultivation large tracts which had not hitherto been used, the deficiency has been supplied, and in ordinary years importation can be dispensed with. The prevailing cereals are rye, barley, and oats. The quantity of wheat produced is comparatively small. Potatoes are grown in almost all parts of the country, and form one of the main articles of food. The most important auxiliary crops are hemp and flax, particularly the latter; and on a few favored spots tobacco, hops, and madder are grown. Cherries, apples, and pears are tolerably plentiful in the south.

12. The principal domestic animals are—cattle, sheep, and reindeer. The last, necessarily confined to the north, are kept in large herds by the Laplanders, and supply them at once with food and clothing. The cattle are generally of a small breed without horns, and are not possessed of valuable properties, either for the butcher or the dairy. The sheep are also inferior, and yield only coarse wool.



SCENE IN LAPLAND.

13. Mining as an industry is, as before stated, confined principally to the production of iron, and this metal constitutes a chief article of trade.

14. Manufactures have made but little progress. The most important are woolen cloth and other woolen stuffs, which are made in large factories, chiefly at Norrköeping and Stockholm, and employ a great number of domestic looms in different quarters; cotton, linen, and silk goods, worsted and cotton-twist, tobacco, etc., manufactured in many places, and on a large scale at Norrköeping; refined sugar, chiefly at Goeteborg; paper, in large quantities, in Christianstad and Falun; leather in all large towns, and particularly at Stockholm; glass, made on an extensive scale in Mariestad; canvas, sail-cloth, earthenware, cordage, and iron-ware, etc. There are also extensive dye, soap, and oil works, breweries, distilleries, and building-yards in almost all the ports of the Baltic.

15. The trade of Sweden is chiefly in articles of raw produce, among which the most important are iron and timber. Next to these are tar, copper, cobalt, alum, hemp, oil, bark, paper, etc. The chief imports are tropical products, salt, wines, silk, wool, cotton goods, hides, skins, butter, bacon, oil, dyes, etc. This trade is chiefly with Great Britain, which takes iron and timber, and with Denmark, Hamburg, Lübeck, Brazil, Russia, Prussia, France, and Portugal. In the year 1851 the exports were valued at 26,958,000 dollars banco, and in 1855 at 68,898,000, and the imports in the same years at 28,048,000 and 56,561,000 respectively. The shipping cleared in the latter year counted 10,565 vessels, with an aggregate of 428,384 lastes, and entered 6,733 vessels and 200,880 lastes. The trade between Sweden and the United States is extremely small. The merchant marine in 1851 numbered 1,407, and in 1855, 2,874 vessels, of the burden of 86,757 and 126,236 lastes; besides which, in 1855, there were in the coasting trade 1,676 vessels (32,593 lastes) and 131 steamers, together 5,927 horse-power. In 1851 the steam marine numbered only 61 vessels and 3,180 horse-power.

16. For carrying on the foreign trade there are many facilities afforded by a great number of good harbors; but the means of internal communication are deficient, though from the comparative narrowness of the country the distance from the sea is not very great. The canals connecting the different central lakes, and giving a continuous water-way from the Kattegat to the Baltic, are the most important works that have yet been constructed for improving and extending the internal communications, and much might yet be done by deepening and removing obstructions from the beds of rivers. In winter, when in most other countries the difficulties of traveling are greatly increased, the Swedes enjoy unusual facilities from the coating of snow which covers the ground, and furnishes an easy means of transport by sledges. Railroads have been recently introduced.

17. Though Sweden and Norway are under the same sovereign, each has its own constitution and separate administration. That of Sweden has at its head a hereditary constitutional sovereign, who possesses the sole executive, and shares also the legislative power with a diet or parliament of hereditary nobility, clergy, burghers, and peasants, or land-owners not noble. These four orders form four chambers, which meet and vote separately. That of the nobility consists of the head of every noble family in the Kingdom, and as these amount to about 2,300, the number of members might be nearly the same, though the attendance seldom exceeds 400 or 500. The clerical chamber consists of the archbishop of Upsala, who always presides, 12 bishops, and about 60 deputies from the various dioceses. The burghers are represented by 97 deputies. The peasants appear by 144 deputies, sent from the several rural districts. To effect constitutional changes the whole four orders must concur; but in ordinary questions the assent of three only is necessary. The king has in all cases an absolute veto. The diet is assembled every fifth year.

18. The government is conducted by a council of state, consisting of the two ministers and eight councilors of state, of whom five are heads of departments and three only deliberative. Each län or province is presided over by a governor. Justice is administered by three supreme courts, which sit respectively at Stockholm, Jöenköeping, and Christianstad. To each of these courts a number of secondary tribunals are subordinate; and beneath these latter are district courts, or courts of primary resort.

19. The army consists of the "värfvade," or active army, consisting of troops enlisted for six years; the "indelta," or stationary troops, who are called out and encamped for four weeks annually, and are allowed a house and lands for their support; the militia of Gottland, which is peculiar to that island; and the "bevering," or troops raised by conscription, to which all Swedes between 20 and 25 years of age are liable. These several arms comprise a total, exclusive of officers, of 144,013 men: the värfvade 7,692, the indelta 33,405, the Gottland militia 7,621, and the bevering 95,295 men. The naval fleet in 1855 consisted of 897 vessels of all kinds, among which are 10 ships of the line, 6 frigates, 9 corvette steamers, 4 corvettes, 4 brigs, 20 schooners, 77 gun-boats, 22 mail steamers, 6 bomb vessels, 21 transports, etc.

20. The annual revenue, according to the estimates for 1855–57, amounted to 14,358,300 dollars banco, about two fifths of which are raised from land-tax and other permanent sources, and three fifths are raised by authority of the diet, and consist chiefly of the proceeds of excise and customs. The expenditures were estimated at 12,876,920 dollars banco. This exposition, however, does not show the real income and expenditure, for not only a large portion of the land troops, but also many civil officials receive remuneration, not from the treasury, but from the income of lands appropriated to special services.

21. In point of intelligence and education the Swedes are scarcely surpassed by any other nation of Europe. Every important district is supplied with public schools, and in addition to these it is almost a national custom for parents to enforce a substantial education at their own firesides. Hence it is affirmed that not one in a thousand Swedes is unable to read and write. In all the towns there are gymnasia, high and burghers' schools, and at Upsala and Lund are celebrated universities. The Lutheran creed is professed by the great body of the people, and is the only religion acknowledged by the state; and though a general toleration is professed, dissidents from the state creed are banished the country. The sovereign and all the chief functionaries must be Lutherans. The number of clergy is about 3,000, and are distributed into the archbishopric of Upsala and the bishoprics of Linköeping, Scara, Strengnäs, Westeräes, Wexiö, Lund, Goeteborg, Kalmar, Carlstad, Hernöesand, and Wisby. The Catholic population is under a vicar-apostolic. The higher orders of the clergy are nominated directly by the king, but all ordinary and parochial clergy are elected by the people.

22. For administrative purposes Sweden is divided into three provinces, and into lans or counties, as follows:

Lans or Counties.	Area, sq. m.	Popula. (1855).	Capitals.	Population.
GOTTLANDS OR GOTHLAND:				
Malmoehus	1,781	268,664	Malmoe	10,202
Christianstadts	2,432	196,121	Christianstadt	4,598
Hallands	1,899	110,815	Halmstadt	2,257
Blekinge	1,135	111,239	Carlscrona	12,456
Kronobergs	3,787	143,707	Wexio	1,844
Joenkoepings	4,292	166,462	Joenkoeping	4,742
Kalmar	4,259	212,565	Kalmar	5,964
Oester-Goethlands	4,253	230,601	Linkoeping	4,767
Skaraborgs	3,815	209,236	Mariestadt	2,608
Elfsborgs	5,036	254,544	Wenersborg	2,710
Goeteborgs	1,892	195,792	Goeteborg	32,618
Gottlands	1,227	46,985	Wisby	5,347
SVEALANDS OR SWEDEN:				
Stockholm	2,912	215,145	STOCKHOLM	97,952
Upsala	2,068	90,828	Upsala	15,203
Westmanlands	2,661	98,941	Westeraes	3,414
Soedermanlands	2,507	123,689	Nykoeping	3,286
Oerebro	3,264	142,863	Oerebro	4,227
Wermlands	6,945	282,521	Carlstadt	3,108
Kopparbergs	12,261	158,755	Falun	4,379
NORRLANDS:				
Gefleborgs	7,561	126,368	Gefle	8,137
Wester-Norrlands	9,502	110,148	Hernoesand	2,114
Jemtlands	19,134	55,988	Oestersund	600
Westerbottens	29,382	79,515	Umea	1,409
Norrbottens	33,032	60,108	Pitea	1,200

—which, with the area of the lakes (3,562 square miles), makes the total surface 170,099 square miles, and the total population 3,641,600, or 21.4 to the square mile—distributed, exclusive of the lake surface, as follows into the provinces:

Gottlands (south)	35,308 square miles	2,146,731 inhabitants,	or 60.8 to square mile
Svealands (middle)	32,618 "	1,062,742 "	" 32.5 "
Norrlands (north)	98,611 "	432,127 "	" 4.4 "

—a distribution instancing in a marked manner the effects of topography and climate on the density of population.

23. Stockholm, the capital, is beautifully and picturesquely situate between Lake Mälar and the Baltic, in latitude (observatory) 59° 20′ 36″ north, and longitude 18° 3′ 45″ east. It stands partly on the north and south sides of the strait which communicates between the lake and the sea, and partly on several islands, which are connected with the main and each other by a number of bridges. The city is strongly protected by works on the small islands of Kastellholm and Waxholm. The principal part of Stockholm, or the city proper, is situate



STOCKHOLM FROM THE MALAR.

on the three islands of Gustavsholm, Riddarsholm, and Helgeandsholm. It is the smallest and oldest, but at the same time the closest built and most densely populated part. It consists for the most part of narrow and crooked streets and lanes. Norrmalm on the north, and Södermalm on the south, though considered only as suburbs, far surpass it both in extent and regularity of structure. The houses in the city are generally of stone; in the suburbs more

frequently of brick, and stuccoed. The public buildings are numerous, but not very remarkable. By far the finest is the palace, which, located on the highest part of Gustavsholm, is seen towering with its vast and massive walls above all the neighboring houses. The whole structure is chaste, simple, massive, and finely proportioned; and besides the royal apartments, contains a library of 50,000 volumes and some rare and curious manuscripts, with a museum, cabinet of coins, and a picture-gallery.

24. Few of the churches possess much architectural merit. The oldest is that of St. Nicholas, in which the kings are crowned. The only other public edifices deserving of notice are—the Ofver-städhallershuus (governor's house); the Riddarhuus, where the states and also the academy of science hold their meetings, and in which the shields of about 3,000 Swedish nobles are hung up; the Exchange and the Mint; the Town-house, a large pile, in which the principal courts of justice are accommodated; and the Post Office, Bank, Merchant-house, Royal Theater, Arsenal, and Barracks.

25. Among the educational establishments are a medical college, with general superintendence over all the medical establishments of the Kingdom, a technological institute, a navigation school, and a school of design. The principal benevolent institutions are a blind and deaf and dumb asylum, a lunatic asylum, the Seraphim infirmary with 300 beds, Danvik's hospital, etc. Associations, literary, artistic, scientific, etc., are very numerous, and include among others the academy of science, the Swedish academy, the academy of history and antiquities, the musical academy, and medical, agricultural, and horticultural societies. Few cities can boast of finer promenades—of these the most frequented are the Djurgarden, or deer park; the Ladugards-garden, or parade-ground; the Haga park, etc.

26. The manufactures of Stockholm consist chiefly of woolen, linen, cotton, and silk goods; porcelain and stoneware, glass, tobacco, refined sugar, ironware, including large castings and machinery. The trade has the advantage of a harbor, which, though somewhat difficult of access, from the length and intricacy of the channels which lead to it, is capacious, and has depth of water sufficient for the largest vessels at its quays. The principal exports are iron, copper, tar, timber, etc. The inland trade is also of considerable extent. Stockholm was founded in 1260.

27. Upsala, 40 miles north-northwest from Stockholm, is one of the most beautiful old-fashioned cities of Europe. The larger portion of its inhabitants depend more or less on the ancient and highly celebrated university, founded in 1478, and which still flourishes among them. Only a few are engaged in manufactures, and a little trade is carried on by means of the Sala, a sluggish stream which runs through the city toward the Mälar, and affords communication with the capital. Danemora, 25 miles north-by-east from Upsala, is noted for its iron mines. Gefle, north of Upsala, is a sea-port on the Gulf of Bothnia with fine quays; and, next to Stockholm and Goeteborg, is the most important trading town in the Kingdom. Falun, west of Gefle, has a school of practical mining; northwest of the town is an immense copper region. A railroad is being constructed between the two places.

28. Goeteborg or Gottenburg, at the mouth of the river Goeta, is the second commercial town of Sweden, and has various manufactures of sail-cloth, cotton-spinning, iron-founding, breweries, etc. It is a regularly built town, intersected by several canals, and contains an Exchange of recent erection, which is one of the finest buildings of the kind in Europe. A railroad connects it with the capital.

29. Carlscrona, situated on several small islands off the southeast coast, is the chief naval arsenal of the country and the ordinary station of the Swedish fleet. It has a fine harbor, and contains extensive docks dug in the rocks, building-slips, and formidable batteries. Its citadel, on an island, is reckoned a masterpiece of military architecture; its granite walls are 20 feet high, and mounted with 200 pieces of cannon. Malmöe, on the east shore of the Sound, nearly opposite Copenhagen, is a fine town, with considerable trade and manufactures. A few miles to the northeast is the ancient city of Lund, the seat of one of the two universities of Sweden, of inferior importance only to that of Upsala. Helsingborg, a small town on the Sound, has a fine artificial harbor. Christianstadt, 54 miles east of Helsingborg, is one of the best built towns of the Kingdom, and is strongly fortified.

30. The other towns of Sweden are only of local importance, and none are large. They are mostly situated either on the shores of the lakes or on the sea-coast, and serve as entrepôts for mineral produce or that of the extensive forests. Motala, on the northeast bank of Lake Wetter, has extensive iron founderies and metal manufactures. Wisby, on the west side of the island of Gottland, is the most remarkable place in the north of Europe. It is a city of the middle ages existing almost unchanged to the present day, although much decayed. During the tenth and eleventh centuries it was one of the most commercial cities of Europe. The harbor is small and shallow, with only 9 or 10 feet of water. Hernosand, on the Gulf of Bothnia, has a harbor, with considerable trade. It contains a botanic garden and a printing-press, from which most of the works for the use of the Laplanders have been produced. Luleä, near the head of the gulf, and Piteä and Umeä, south of it, are also trading ports. Trade and ship-building have started up in all these little towns.

31. Almost all the inhabitants of Sweden, with the exception of the Finns and Laplanders, found in the north, are of Teutonic origin. The earliest traditions of the country present only a confused mass of fable. Christianity appears to have been first introduced about the beginning of the ninth century; but the great mass of the people continued attached to paganism for three centuries later. In 1397 the crown of Sweden was united to those of Denmark and Norway by Margaret of Denmark. The Swedes recovered their independence under Gustavus Vasa, in 1521, and the house of Vasa ascended the throne in 1523, giving to Sweden the celebrated Gustavus Adolphus. It was succeeded by the house of Deux-Ponts, which furnished the famous Charles XII., and to this succeeded the houses of Hessen-Cassel and Holstein-Gottorp. In 1810 Marshal Bernadotte was chosen crown-prince, and ascended the throne as Charles John XIV. in 1818. In 1814 the crowns of Sweden and Norway were united; but each retained its own constitution and laws and separate political organization. Bernadotte, though originally a soldier in the service of Napoleon, showed himself throughout his reign an able, enlightened, and patriotic prince; and at his death, in 1844, left the Kingdom in a far more prosperous condition than when he received it.

[*Weights, Measures, and Moneys.*—The Swedes have several classes of weights. The skolpund (commercial) of 2 marks or 16 oz. = 425.34 grammes or 0.9378 lb. avoird., and 120 = 6 lispunds = 1 centner, 400 = 1 shippund, and 6,000 = 1 ship laste; the mark (miners' weight) = 375.82 grammes or 0.8286 lb. avoird.; the mark (iron weight) = 340.27 grammes or 0.75 lb. avoird.; and the mark (gold and silver weight) = 210.64 grammes or 3,251.6 grains Troy.

Measures.—The aln or ell of 2 feet and 24 inches = 593.97 millimetres or 23.3756 inches; 3 ales = 1 faden or fathom, and 8 = 1 ruthe. The mile = 2,250 ruthen = 11,687 yards or 6.64 miles. A tunna of land = 1.22 acre. The kann (liquid measure) = 2.6166 litres or 0.6912 gallon; 30 = 2 ankers = 1 eimer, and 72 eimers = 4 oxhofts = 2 pipes = 1 fuder of wine; also 48 kannen = 1 tunna. The tunna (dry measure) = 156.45 litres or 4.4419 bushels.

Moneys.—Accounts are stated in riksdalers of 48 skillings, each of 12 rundstycken or pennies. The only gold coin is the ducat minted at the rate of 62 2-281 to the mark weight of fine metal, and valued at $2.2566. Silver is minted at the rate of 6¼ to the mark weight of metal 750 fine, and hence the daler weighs 520½ grains Troy, and is worth $1.0511. Paper money, which is that chiefly in use, consists of two denominations—*banco*, notes of the national bank, and *riksgald*, or notes of the government bank; 3 riksgald = 2 banco; and banco is exchanged for specie or silver at the rate of 8 for 3. Hence the riksdaler banco = 39.41 cents, and the riksdaler riksgald = 26.27 cents.]

RUSSIA IN EUROPE.*

1. Russia in Europe is all that portion of the Empire lying west of the Ural Mountains and river and the Caspian Sea. Its greatest extent, measured from the most southerly point of the Crimea to the north coast of Lapland, is about 1,720 miles; and from the western border of Poland to the 60th meridian, along the 52d parallel, about 1,920 miles. The superficial area is estimated at 2,134,126.

2. The surface, in the most general view that can be taken of it, is two immense plains, the boundary between which is marked, though not very definitely, by a broad central ridge, which stretches across it in an irregular, waving line, namely, in a northeast direction, commencing on the frontiers of Poland and terminating on the west side of the Ural Mountains, near latitude 62° north. This ridge forms the eastern continuation of the great watershed which divides the whole continent of Europe into a north and a south basin; but unlike the western part, which is composed of lofty mountain chains or elevated plateaux, is only of very moderate height, never exceeding 1,000 feet above the sea-level. Even this height is attained only in the Valdai Mountains. The far greater part of them, and of the remainder of the ridge, has an average height of not more than 500 feet.



STEPPES OF SOUTHERN RUSSIA.

3. The only regions where the surface assumes a decidedly mountainous appearance are in the east, where the Ural chain, though nowhere exceeding 7,000 feet, appears much more elevated, at least in its upper part, from its high latitude and consequent covering of perpetual snow; and in the south, where the mountains of Taurida, lining the south shores of the Crimea, have a height of about 4,000 feet.

4. The broad central ridge above referred to, forming the great watershed of the country, sends the waters on its north side either to the Arctic Ocean or to the Baltic, and those on its south side to the Black Sea or the Caspian Sea. These, therefore, form the four great basins to which all the rivers of European Russia belong, many of which are of great magnitude.

5. The Petchora is the only large river which sends its waters directly to the Arctic Ocean. The Mezen, Dvina, and Onega reach it through the medium of the White Sea. The surface drained by the rivers of this basin is almost entirely confined to the two extensive governments of Archangel and Vologda, and is bounded eastward by the Ural chain, from the slopes of which the Petchora receives a number of important affluents.

6. The principal rivers of the Atlantic basin are the Kemi and Torneä (the latter common to both Russia and Sweden), which fall into the Gulf of Bothnia; the Kymmene, Neva, and Narva or Narowa, which fall into the Gulf of Finland; the Aa and South Dvina, which fall

* The Russian Empire, territorially the largest in the world, occupies nearly the whole of northern Europe, the whole of northern Asia, and a considerable tract in northwestern America; and extends east and west from longitude 18° east, *eastward* to 132° west from Greenwich, and north and south between the latitudes of 37° 30′ and 78° 30′ north. It is bounded on the north by the Arctic Ocean, on the east by British America, on the southeast by the Pacific Ocean, on the south by the Chinese Empire, Independent Tartary, Persia, Turkey in Asia, the Black Sea, Turkey in Europe, Austria, and Prussia, and on the west by the Baltic Sea and Sweden.

Within the limits above demarked, this vast territory stretches in Europe, Asia, and America over 210 degrees of longitude, or over 30 degrees more than half the circuit of the globe; but in consequence of the shortness of the meridional miles in the high latitudes in which it lies, its length, east and west, does not average more than 7,000 English miles; and its average breadth, north and south, is not more than 1,500 or 1,600 miles. So immense, however, is the whole area of the Empire, that it at least doubles the superficies of Europe, and is nearly equal to that of all North America. The nearest approximations fix it at 7,977,532 square miles, and state its population at 65,237,437 or 8.2 to every square mile—a low average, but in the aggregate making probably a seventeenth of the whole population of the world. The distribution of this area and population is as follows:

Russia in Europe	2,134,126	square miles	60,122,669	inhabitants, or 28.15 to square mile.
Russia in Asia	5,264,400	"	5,060,768	" " 0.91 "
Russia in America	579,006	"	54,000	" " 0.09 "

The component races of the population as here given are ethnographically as follows: Russians 47,800,000, Lithuanians and Poles 7,000,000, Finns and Lapps 3,300,000, Tartar tribes and Mohammedans 2,400,000, Germans 600,000, Georgians and Armenians 2,000,000, Israelites 1,500,000, Uralian races 600,000, and Americans 50,000.

The continuity of the Empire, at least of the European and Asiatic portions of it, might seem to suggest the propriety of viewing it as one great whole, and of proceeding accordingly to its description in a single article; but, on the other hand, its immense magnitude and the distinct names commonly used to designate these portions make it more convenient to consider them separately under the three heads specified in the above account.

into the Gulf of Riga; the Niemen or Memel, which enters Prussia before terminating its course; and the West Bug, an affluent of the Vistula.

7. To the basin of the Black Sea belong the Dniester, South Bug, and Dnieper, which all have their mouths at a short distance from each other in the neighborhood of Odessa; the Don, which falls into the northeast extremity of the Sea of Azof, and the Kuban, which derives its chief supplies from Circassia, and forms great part of its boundary.

8. The basin of the Caspian is, in some respects, the most remarkable of all, since, though Europe sends it at most only two large rivers, the Ural and the Volga, both supplied in part from Asiatic sources, the latter not only surpasses all other Russian rivers, but is one of the greatest of which Europe can boast. The eastern parts of Perm and Orenburg belong to the basin of the Obi, and are properly Asiatic.

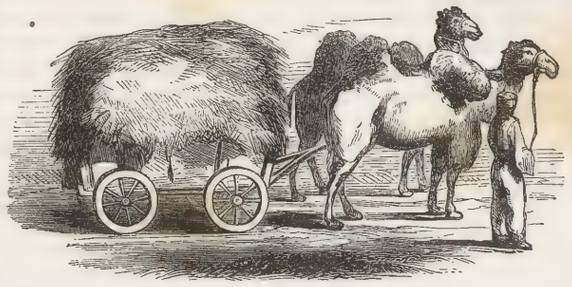
9. The lakes of Russia are on a scale of magnificence commensurate with that of the rivers. Besides the Caspian—which, being wholly surrounded by land and even incapable from the lowness of its level of discharging itself into any other sea, is truly a lake—Russia has others of vast extent. Of these all the larger belong to the northern basins, and, with scarcely a single exception, to the basin of the Baltic. To it at least belong Ladoga (the largest lake in Europe), Onega, Peipus, and Ilmen. Finland, too, which toward its southern extremity is a mere network of lakes, sends all its waters to the Baltic. All other lakes of any consequence belong to the basin of the Volga, and are of much smaller dimensions than those above referred to. In the south are several salt lakes, among which may be mentioned the Elton and Baskutchask, in Astrakhan.

10. Russia extends from the warmer regions of the temperate far into the regions of the frozen zone, and consequently must exhibit very marked diversity of climate. It is usual, accordingly, to consider it in four distinct divisions—a polar region, including all the country north of 67° north latitude; a cold region, extending from 67° to 57°; a temperate region, from 57° to 50°; and a warm region, from 50° southward; and another division may be founded on the vegetation of the different regions—from that where vegetation is almost extinct to the region of the olive and sugar-cane. In regard to the climate in general, it may be observed that its characteristic features are a greater coldness and variableness than is common under the same latitudes in the more westerly parts of Europe. In all regions, however, the climates are salubrious, and except in particular districts, where insalubrity can easily be traced to local causes, disease is by no means prevalent, and human life often attains its longest allotted term.

11. A considerable portion of the surface still continues almost in a state of nature; and where it is well wooded, there is room to question whether any other mode of occupation could be made equally productive. Forests, however, are found chiefly in the more northern governments. The southern governments are inadequately supplied. The prevailing trees of the northern forests are—fir, larch, alder, and birch. The oak is seldom found beyond latitude 61°; few fruit-trees beyond 56°, and their regular culture can not be profitably carried on beyond 53°. So far apples, pears, and plums are tolerably abundant, and still farther south peaches, apricots, quinces, almonds, and pomegranates become common fruits. The vine and mulberry also are extensively cultivated, and considerable quantities of wine and silk are obtained. In the Crimea are extensive vineyards, and the vine is also extensively cultivated in Bessarabia, Kherson, Kief, Astrakhan, and the country of the Don Cossacks.

12. But it is to agriculture,* properly so called, that Russia must long continue to look for the richest source of national prosperity; and in its soils of inexhaustible fertility all the cereals are produced in such abundance as to supply not only a vast home requisition, but also a large export trade. Besides these, the great agricultural staples are—hemp, flax, hops, tobacco, and the sugar-beet. As a whole, no country in Europe can so abundantly supply the necessaries of life and many of its luxuries so cheaply and with so small an expenditure of skill and labor as Russia.

13. Animals, both domestic and wild, are extremely numerous. In several parts horses still run wild; and cattle exist in such numbers that tallow and hides form very important articles of export. The best breeds are those of the Ukraine, Archangel, Bessarabia, and Grodno. In Livonia a great number of excellent cows are kept for the dairy, and much good cheese is made. Sheep, goats, swine, etc., are also very numerous; and in the north, along the shores of the Arctic Ocean, large herds of reindeer are kept, and in the south, among the Tartars of the Crimea and inhabitants of the Caucasus, the camel is common stock. The improved breeds of sheep are found principally in Livonia, Esthonia, and Kurland, but are rapidly spreading into other parts. According to returns made in 1855 there were in European Russia 35,666,598 sheep and 1,188,173 goats.



TARTAR CAMEL CART.

14. Among wild animals the bear, wolf, wild hog, etc., are hunted, and also various other animals valuable for their furs. The great bulk of the skins and furs, however, which appear in the markets, are derived from Asia and America. Wild fowl abound on the coasts both of the seas and lakes; and in the seas and rivers productive fisheries are carried on. In the Arctic Ocean whales are occasionally seen, and vast numbers of seal are there taken. The rivers of the Caspian, particularly the Ural and Volga, and the Sea of Azof, are celebrated for their sturgeon. In the same quarters are also important salmon fisheries.

* Cereals of every kind are raised in great abundance; but rye, being the common food of the peasantry, is produced in much greater quantities than any other sorts of grain. The most productive provinces are Orel, Kasan, Nijnei-Novgorod, Penza, Tambof, and Kursk. The total annual production of grains in European Russia (including Poland) may be estimated in ordinary years at 1,495 million bushels. Flax and hemp are also extensively cultivated, and constitute a leading export. Tobacco is cultivated in the southern provinces, and of late years increasing attention has been given to the sugar-beet. In 1848 the quantity of sugar manufactured was 32,240,000 pounds, and in 1852 it was 87,048,000 pounds.

15. The population of Russia in Europe in 1851 amounted to 60,122,669. Ethnographically considered this may be ranged in two great classes—the Caucasian and the Mongolian. The Caucasian stock includes Sclavonians, Germans, Finns, Tartars, Greeks, Jews, etc.; the Mongolian is represented almost exclusively by the Calmucks, who occupy some of the south-eastern steppes. The Russians proper form the great body of the people. These are found chiefly in the central provinces, and more or less intermixed in every portion of the Empire. The Poles are naturally resident in the greatest number in their own unfortunate country; the Lithuanians chiefly in North Poland and in Wilna and Minsk; and still farther north are the Kurs or Lettes, living chiefly in Kurland. The Wallachians, and among them a few Servians, inhabit Bessarabia. The Finns (Tchudes) bear a strong resemblance to the Mongol families, although they are said to be of Caucasian origin. These are subdivided into Finns proper and Laplanders, and inhabit both sides of the Gulf of Finland. Several tribes of the same race are also found occupying the west slopes of the Urals and the banks of the Middle Volga, under the names of Syrianes, Permians, Voguls, Votiaks, Tchuvasses, Tcherimisses, Mordwins, and Teptiares. The Tartars form four distinct tribes—those of Kasan, the Bashkirs, the Nogais, and the Metcheriaks. These inhabit chiefly Kasan and Astrakhan. The German or Teutonic races are dispersed over the Baltic provinces, among the Lettes and Esthonians, where they constitute the greater part of the nobility. They are also numerous in St. Petersburg and Moscow, and a considerable number are settled in Saratof and on the Middle Volga. Swedes are numerous both along the east shore of the Gulf of Bothnia and the north shores of the Gulf of Finland. The Greeks are dispersed over all the south provinces, chiefly as merchants; and the Jews are principally found in ancient Poland, where they form the greater part of the urban population.

16. From this diversity of races, it is evident that many different languages and a vast variety of dialects must be spoken. The Russian, however, is the language of four fifths of the people. It is based on the ancient Sclavonic, but has been much modified by interpolation of Greek, Tartar, and Mongolian terms. It has an alphabet of 27 letters, a written and printed character of a peculiar form, and a pronunciation which it is hardly possible for any but a native to master; but it is soft, rich, and sonorous, and well adapted to any species of literature.

17. Russia, as before stated, is eminently an agricultural country. In a country where so much land remains to be taken into cultivation, and in which the population is so much scattered, manufactures can not be expected to be very extensive, except in a few leading towns. Considering these unfavorable circumstances, the progress of Russia in manufactures* has been much greater than could have been anticipated. The branches in which most progress has been made are leather and morocco, the latter chiefly at Astrakhan, Kasan, and Taurida, in all of which an unsurpassed article is produced; cotton-twist and goods at St. Petersburg, Moscow, Vladimir, Kostroma, and Astrakhan; woolen and linen goods in many parts of Poland and in most of the provincial towns; silks, particularly at St. Petersburg and Moscow; sail-cloth at these two capitals, and also in Archangel, Riazan, and Novgorod; fine Cashmere shawls in Penza and Ekaterinoslaf; fine carpets at Kamenskoi, Smolensk, and Kursk; cordage at Archangel and Orel; metals, more especially iron and copper, in Perm and many other localities; fire-arms, swords, and other cutlery, in Tula; plate-glass and crystal at St. Petersburg, Tula, and Tver; tapestry at Issa and St. Petersburg; paper at Moscow, Jaroslaf, Kaluga, and in Livonia; carriages, jewelry, and porcelain also at St. Petersburg and Moscow; hosiery at Sarepta and various other places; and oil, wax, candles, soap, glue, tobacco, window and other glass in every populous town.

18. Russia has many and valuable minerals. Gold is obtained in large quantities, both by mining and washing, on the slopes of the Urals and the streams descending from them. Gold, however, is chiefly found on the east side of the chain. Copper is found both in the Valdai and Ural mountains. Iron is most widely diffused, and of Russian metals is the most extensively and profitably worked; the iron of Perm is the best quality known to commerce. Lead is a less abundant production, and is chiefly worked in Poland and the Urals, and in many places the ore is highly argentiferous. The platina mines of the Urals are the richest in the world. Salt, saltpeter, etc., are also extensively produced, the former both from mines and brine-pits. So far as yet known, Russia is not rich in coal. This important mineral, however, is found to exist among the Valdai Hills and in some other parts, and there is a considerably rich coal-field in the country between the Dnieper and the Don. The only other mineral products deserving of notice are granite and marbles, both of which, of excellent quality, are found near the shores and to the northeast of Lake Ladoga.

19. General trade is also very extensive. It is true that considering the vast extent of country the sea-ports are very few, being almost confined to Archangel, in the Arctic Ocean; St. Petersburg and Riga, in the Baltic; Odessa, and a few others of less importance, in the Black Sea; Taganrog, in the Sea of Azof; and Astrakhan, Baku, and Kezliar, on the Caspian; and that commerce must have been very circumscribed, had not a remarkable number of internal feeders been provided by nature and art—by nature in the magnificent streams which wind across the country in all directions, and by art in the great system of canals by which the different basins have been made to communicate with each other, so as to give a continuous navigation from the Arctic Ocean to the Black Sea, and from the Baltic to the Caspian, together with a network of branch canals by which all the great towns of the interior have ready access to their outports and to each other. A railroad connecting St. Petersburg with

* The total manufactures of Russia employ 6,064,700 persons, of which 4,500,000 are engaged in the manufacture of hemp and flax. The annual value of products is estimated at 486 million silver roubles. Moscow is the grand center of this branch of industrial pursuits, and is inhabited almost exclusively by manufacturers and artisans. The following table exhibits the number and character of manufactures, etc., in 1852; but it is proper to remark that the table gives only the principal manufactures, or those which enter into the export trade:

Establishments.	Number.	Hands.	Val. of Products.
Woolen (cloths and yarn)	414	86,443	S. R. 19,129,833
" (tissues and yarn)	130	13,806	5,231,457
Cotton (yarn, thread, etc.)	55	50,976	15,647,838
" (cloths, tissues, etc.)	440	81,451	14,208,540
Dyeing	349	25,867	15,425,334
Weaving	112	12,450	2 239,099
Silk (brocades, etc.)	532	15,982	5,672,252
Cables	142	3,403	1,940,042
Paper	177	14,942	3,928,976
Tobacco	345	4,861	4,687,005
Founderies and forges	115	27.879	3.696,099
Hardware	289	13,542	2,254,262
Copper	149	4,235	S. R. 1,366,915
Chemicals	102	2,612	2,320,452
Soap	262	964	1,229,122
Sugar	364	45 711	19,315,603
Glass and crystals	189	11,650	3,287,868
Tallow	534	4,511	5,296,659
Candles	493	2.073	4,498,484
Wax candles	15	1.264	1,597,573
Tanneries	2,032	14,565	9,134,749
Not specified	3,148	51,774	19,043,551
Total	10,388	470,911	S. R. 161,151,703

Moscow has also been completed, and the German lines connect eastward with Warsaw. Other railroads are in progress which will connect St. Petersburg with the Black Sea and the Caspian.

20. The principal exports of Russia are tallow, corn and flour, flax and hemp, timber, potash, bristles, lard, tar, hides, furs, leather, sail-cloth, cordage, iron, copper, etc. The principal imports are tropical produce, cotton, cotton-twist, and cotton and woolen goods, raw and spun silk, dye-stuffs, machinery, lead, tin, quicksilver, oils, wines, etc. The sea trade is chiefly carried on with Great Britain, and partially, but to a far less extent, with France, Sweden, Holland, Italy, Austria, Turkey, Greece, Denmark, Prussia, and the United States. The principal ports for foreign commerce are St. Petersburg and Riga on the Baltic, Archangel on the White Sea, Kertch and Taganrog on the Sea of Azof, and Astrakhan and Baku on the Caspian.

21. The overland foreign trade is chiefly that with Persia and China, from the latter of which Russia imports, through the frontier mart of Kiachta, tea, silks, nankeens, porcelain, etc., and exports in return furs, leather, linen and woolen fabrics. The inland trade, strictly so called, is carried on to a much greater extent than any other, and has its most important entrepôts at St. Petersburg, Moscow, Morshansk, Kaluga, Tula, Kursk, Nijnei-Novgorod, Kasan, Perm, Orenburg, and Astrakhan.

22. The total value of Russian commerce with foreign countries, also the arrivals and departures, etc., in 1851, are represented in the following exhibit:

	Exports.	Imports.
Russia Proper	S. R. 79,221,377	S. R. 78,038,315
Poland	4,852,226	9,015,372
Finland	11,140,293	15,784,886
By the frontier of Asia	2,180,561	949,089
Total	S. R. 97,394,457	S. R. 103,757,612

Ports of	Arrivals.		Departures.	
Baltic Sea	3,790	579,396 lasts.	3,781	576,289 lasts.
White Sea	721		658	
Black Sea	2,585		2,598	
Caspian Sea	227		305	
Total	7,323		7,342	

The principal foreign merchandise entering into the import trade of Russia in 1851 comprised —coffee, 228,803 poods; raw sugar, 1,829,877 poods; olive oil, 576,180 poods; wines and liquors (value), S. R. 7,008,635, and fruits, S. R. 3,045,118; cotton, 1,312,356 poods; cotton-twist, 138,065 poods; dyestuffs (value), S. R. 5,806,944; silk, 11,631 poods; wool, 67,443 poods; tissues of cotton (value) S. R. 4,486,221, of silk S. R. 4,466,211, of flax S. R. 962,048, and of wool S. R. 1,728,894; machinery, etc., S. R. 2,889,116. The principal staples of Russia exported consisted of—grain (value), S. R. 19,393,281; red hides S. R. 1,288,121, and raw hides S. R. 833,698; flax 3,018,780 poods, and hemp 3,042,422 poods; timber (value), S. R. 3,519,263; copper, 110,905 poods; iron, 793,054 poods; potash, 507,330 poods; tallow, 2,998,438 poods; hemp and linseed, 963,784 tchetwerts; wool, 479,074 poods; bristles, 74,075 poods. The progress of Russian commerce (value reduced to dollars) is thus exhibited:

Years.	Value of Imports.	Value of Exports.	Years.	Value of Imports.	Value of Exports.	Years.	Value of Imports.	Value of Exports.
1843	$61,409,203	$67,459,042	1846	$65,016,798	$78,063,231	1849	$70,108,670	$62,689,958
1844	59,644,762	71,193,667	1847	67,773,674	112,966,872	1850	74,019,787	73,063,982
1845	63,202,642	70,351,181	1848	68,961,489	67,136,002	1851	77,803,209	73,045,843

—in 1760 imports were only $2,926,656, and exports $3,580,800.

23. Russia is an imperial autocracy, the czar or emperor assuming the title of *samoderjetz*, or autocrat of all the Russias. He is absolutely supreme, accountable to no one. As in all like despotisms, however, his actions are to a great extent controlled by custom and public opinion; and of course in every individual reign the personal character of the sovereign must determine that of the administration. Under Paul I. real despotism existed; under Alexander the government assumed a constitutional form, and under Nicholas and the present emperor it was and is alike mild and efficacious, and well suited to the character of the governed.

24. In the administration, the principal authority is the imperial council, presided over by the emperor himself, or his immediate appointee. It has no limit to its members, and is divided into five sections—legislative, military, civil and ecclesiastic, economic, and the affairs of Poland. All matters coming under deliberation are decided by a majority of votes, either by the sections severally or by the whole acting as one body. The senate, also presided over by the emperor, is the supreme judicial tribunal, and issues decrees having the force of law, unless vetoed by the emperor himself. It is divided into eight departments, each of which is an appeal court of the last resort for certain provinces and governments. Decisions of each department must be supported by two thirds of the members present, and when this majority can not be attained, a general meeting of all the departments is called to decide. The procedures are not public, and the whole pleadings are in writing. The third great body in the administration is the synod or supreme ecclesiastical court.

25. The executive power is intrusted to what is called the College, or committee of ministers, thirteen in number, and distributed as usual in other governments into different bureaux, for finances, war, marine, justice, public instruction, etc. The civil affairs of each government are intrusted to civil governors, and the military to military governors; and governors-general, civil and military, are vested with the superintendence of several governments grouped together, the governors being in some measure subject to their powers.



REGULAR TROOPS.

26. To guide and give uniformity to decisions in legal cases, a voluminous code, called the *svod-zakonow*, or corpus juris, has been drawn up and declared to be the law of Russia, in so far as not modified by the laws and privileges of particular provinces. It contains an abstract of all the laws and ordinances issued by the different emperors from 1649 downward, and forms 15 large volumes. The laws and ordinances are also published in full. Poland and Finland have separate administrations.

27. The land forces are composed—1st, of regular troops, and—2d, of Cossacks and other races, used chiefly as light cavalry. The regular troops comprehend—1st, the grand army, destined for field operations, and—2d, troops employed in local duty. Each soldier of the grand army is held to 25 years' service; but after a service of 10 or 15 years he is carried to the list of reserve. The following table exhibits the force of the active troops always ready to enter the field:

Corps.	Infantry, battalions.	Cavalry, squadrons.	Artillery, battalions.	Cannon, pieces.	Engineers corps.
Guards	37	77½	15½	116	3
Grenadiers	37	32	14	112	1
Troops of the line	294	192	84	672	6
Cavalry of reserve (1st)	—	48	4	32	—
" " (2d)	—	48	4	32	—
Dragoons	—	80	4	32	2
Total	368	477½	125½	996	12

—including the full reserve (213,000 men, and 472 guns), the complement of this arm on a war footing numbers 699,000 men, and 1,468 guns. The regulars employed in local service consist of 190 battalions of infantry and 10 squadrons of cavalry, with 180 guns, and counting 198,000 men. The reserve numbers about 100,000, and consists of veterans and invalids. In this arm are comprised—the army of the Caucasus, the troops of interior towns, and troops stationed in Finland, Orenburg, and Siberia. The Cossack regiments, forming the irregular troops, number 126,200 men, and are comprised in 124 horse squadrons, 742 squadrons part horse and part foot, 33 battalions of infantry (24 in Siberia), and 28 batteries of 224 guns. These troops, regular, irregular, and reserve, count collectively 1,123,200 men of all arms.



IRREGULAR TROOPS.

28. The Russian navy is embraced in four divisions or fleets, named after the seas to which they are detailed. The following is the arrangement now in existence:

1st Division or Baltic Fleet.	2d Division or White Sea Fleet.	3d Division or Pacific Fleet.	4th Division or Black Sea Fleet.
6 ships.	6 ships.	8 ships.	*Destroyed or sunk during the late war.*
3 steam frigates.	8 frigates.	5 frigates.	
3 frigates.		2 steamers.	
2 corvettes.		3 transports.	

—and besides these there are considerable numbers of small armed vessels and steamers. In 1853 the navy consisted of 60 ships of the line of 70 to 120 guns, 37 frigates of 40 to 60 guns, 70 corvettes, brigs, etc., and 40 steamers, etc., in all carrying about 9,000 guns, 42,000 sailors and 20,000 marines.

29. The land fortifications of Russia are systematic and complete. Cronstadt and Sveaborg on the Baltic, Sebastopol (?) and Odessa on the Black Sea, Archangel on the White Sea, and Petropaulovsk on the Pacific, are fortifications of the first class. More especially is this the case with Cronstadt and Sebastopol, which form the keys of European Russia in the west and south. The strongholds of the land frontier toward the west and of the interior are also works unsurpassed in engineering skill and strength of position, architecture, and appointment. Almost every city of importance has works of this description, and might hold out against superior forces for an indefinite period.

30. The revenue of Russia, derived chiefly from the public domains, forests, royalties, monopolies, imposts, direct and indirect, etc., amounted in 1852 to 275,472,000 silver roubles, and the expenditures for the same year were 275,835,000. Of the receipts, 205,927,000 silver roubles were derived from the domains, forests, etc., 29,395,000 from direct imposts, as capitation tax, road tax, patents, etc., 33,650,000 from indirect imposts, as customs, excise, etc., and 6,500,000 from miscellaneous sources. The disbursements were on account of—the imperial household 10,750,000 silver roubles, the army 70,895,000, the navy 26,500,000, the public debt 33,500,000, and other charges of the state 134,190,000. The funded debt of the empire in 1853 amounted to 401,552,111 silver roubles, and in 1857 to 521,987,810. At the latter date there was also an unfunded debt amounting to 782,279,844 silver roubles.

31. The state religion is the Non-United Greek, to which at least four fifths of the people are attached. In doctrine, this church strongly resembles the Roman Catholic, but differs essentially from it in government and discipline; and in its general toleration of other sects contrasts favorably with the most tolerant. The emperor is acknowledged as its temporal head, and it is governed by a supreme synod, composed partly of lay-members. The Roman Catholics comprise about a ninth of the population, and are found chiefly in Poland. Lutheranism is professed by the great body of the Germans and Swedes. Islamism is principally found in the southeast. These, however, are only unimportant deductions to be made from the almost universal ascendency of the Greek Church, which possesses numerous state privileges.

32. Though Russia still ranks among the more imperfectly educated countries of Europe, the government has long taken a distinguished lead in the cause, and promulgated a complete national system which, though not yet carried into full effect, has made and still continues to make great and rapid progress. The basis of this system was laid by Peter the Great, and promoted by Catherine II., but is indebted for its fuller development to Alexander and Nicholas. It divides the whole country into university districts, in each of which a university has been or is intended to be erected. Each district extends over several governments, all the public schools in which, consisting of a regular gradation of gymnasia, district, and parish schools, are under the superintendency of the University. Other important schools not subject to the same superintendence are classed under the heads of military, ecclesiastical, and special. To give unity and vigor to the whole system, a special ministry of public instruction has been established, and now forms one of the great departments of the state.

33. Politically, the people are divided into the four classes of clergy, nobility, merchants, and burghers. The clergy are regular or secular. The regular clergy belong to some monastic order, take lead in the church, and monopolize all the higher preferments. The secular are the proper parish clergy, and not only marry, but must be married before they can hold a cure.

34. The nobility are such either by birth or by personal service. All officers of the army, navy, and state rank in the latter division, and are subdivided into fourteen grades. Every one of these grades, even the lowest, which is that of an ensign in the army or a college registrar in the civil service, is noble; but so long as no higher than the seventh grade is attained, nobility becomes extinct on the death of the owner; by the attainment of the eighth grade (that of a major in the army, or navy captain, or college assessor), nobility becomes hereditary. In this way the class of nobility is continually receiving large accessions and absorbing an inordinate share of the talent of the country.

35. The third class consists of merchants and burghers. Merchants are arranged in three guilds: merchants of the first guild pay an annual trading license of about $500, and are under no limitations as to the enterprise they may engage in; those of the second guild pay $200, and are subject to various limitations, among others they can not enter into any contract exceeding $10,000, nor keep either a banking or insurance office; and those of the third guild pay only $50, and may carry on any retail trade or manufacture not employing upward of 32 workmen. Burghers pay from $5 to $15, according to the class of towns they inhabit and the number of workmen, not exceeding 16, they may employ. Burghers paying no license may, within specified limits, engage in ordinary manufactures or retail trades. All burghers, however, pay a capitation tax and are liable to military conscription.

36. The fourth class, consisting of the peasants or serfs, is the lowest of all, and by far the most numerous. They belong, in nearly equal proportions, to the crown and individual proprietors; and though their different conditions admit of considerable diversity, the great body of them are, to all intents and purposes, little better than slaves. It ought to be observed, however, that the Emperor Alexander, from motives of humanity, formed a new division, to consist of free cultivators; and his successors have followed the same policy, looking eventually to complete emancipation.

37. Russia in Europe comprises the following grand divisions, which are each divided into a number of governments, and other administrative subdivisions:

Grand Divisions.	No. of Governments.	Area, sq. m.	Population (1851).	Capitals of Governments, etc.
Great Russia	19	890,412	20,700,497	Moscow, 373,800; Tula, 54,626; Kaluga, 36,000; Archangel, 34,000; Orel, 34,000; Jaraslof, 27,000; Tver, 25,000; Kursk, 26,000; Tambof, 22,000; Nijnei-Novgorod, 20,000; Voronej, 19,000; Veliki-Novgorod, 17,000; Vologda, 16,000; Kostroma, 14,000; Smolensk, 12,000; Riazan, 10,000; Pskof, 8,000; Vladimir, 8,000; Petrozavodsk, 8,000.
Little Russia	4	80,893	6,046,47	Kief, 56,000; Kharkof, 35,000; Polgava, 16,000; Czernigof, 10,000.
South or New Russia	6	175,639	4,234,329	Odessa, 71,392; Kishenau, 43,000; Kherson, 30,000; Nov. Tcherkask, 18,000; Ekaterinoslaf, 14,000; Simferopol, 8,000; Stavropol, 7,000.
West or White Russia	8	162,122	8,021,510	Wilna, 50,286; Jitomir, 28,000; Mohilef, 26,000; Minsk, 24,000; Vitepsk, 17,000; Kamenetz, 16,000; Grodno, 16,000; Kowno, 7,000.
Baltic Provinces	4	57,583	2,216,936	St. Petersburg, 532,241; Riga, 57,906; Mittau, 31,000; Revel, 20,000; Cronstadt, 43,000.
Finland, Gr. Duchy of	8	146,275	1,660,763	Abo, 16,000; Helsingfors, 14,000; Uleaborg, 6,000; Viborg, 3,800; Wasa, 3,400; Kuopio, 2,000; Tawastehuus, 1,800; St. Mikel, 1,800.
Kazan, Kingdom of	5	239,367	6,990,580	Kazan, 58,000; Simbirsk, 18,000; Penza, 14,000; Perm, 10,000; Viatka, 9,000.
Astrakhan, Kingdom of	5	332,294	5,399,532	Astrakhan, 43,000; Saratof, 40,000; Orenburg, 15,000; Samara, 12,000; Georgievsk, 3,000.
Poland, Kingdom of	5	49,538	4,852,055	Warsaw, 167,000; Lublin, 17,000; Plock, 6,000; Radom, 6,000; Suwalki, 5,500.
Total	64	2,134,126	60,122,669	

38. St. Petersburg, the magnificent capital of the Empire, is situate on the banks and islands of the Neva, which here by several mouths enters the east extremity of the Gulf of Finland. Latitude (observatory) 59° 56′ north, and longitude 30° 19′ east. The site is flat and marshy, and subject to inundations. The Neva is bordered by granite quays, and lined by a succession of magnificent structures, including the new Cathedral of St. Isaac, the Admiralty, the Hermitage (long the residence of Catherine II.), etc.; and in the same quarter the Marble Palace, the City Hall, Senate, and several ministerial offices, and the Cathedral of our Lady of Kazan, built on the model of St. Peter's at Rome. The Citadel, on a small island, contains the Mint and the Cathedral of St. Peter and St. Paul, in which are the tombs of the Russian sovereigns. On an adjacent island are some outworks and the house in which Peter the Great lived while constructing the original town, which was founded in 1703. Other chief structures are the Anitchkoff and Taurida palaces, the hotel of the Academy of Arts, the Barracks, Arsenal, a canon foundery, the Mikhailof Palace, the vast Convent of Smolnoi, numerous hospitals, etc. The south part of the city is intersected by the Fontanka and other canals, lined by fine quays. Upward of 160 bridges cross the several arms of the river and the canal, 12 of which are of cast iron, 33 of granite, several suspension and boat bridges. The principal educational institution is the University, with 69 professors and 700 or 800 students, and here also are military, medical, theological, and commercial colleges; high and other schools for both sexes; the imperial library, with 480,000 volumes, an academy of sciences, with a valuable museum, etc.; and numerous other learned societies. Manufactures of all kinds are carried on, and next to London, Liverpool, and Hamburg, it has the most important foreign trade of any city in Europe. It receives merchandise from all parts of the Empire and central Asia. Cronstadt, the port of St. Petersburg, likewise the principal station of the Baltic fleet, and strongly fortified, is situate on an island 18 miles west from the city. The mercantile port is deep, safe, and commodious. The channel higher up is available only for craft not drawing more than eight or nine feet. Ship-building is extensively carried on. On the whole, St. Petersburg, with its suburbs, is one of the most splendid cities of the world, and no other has so many or so magnificent public structures and works designed to facilitate its trade and commercial prosperity. By means of rivers and canals it is connected by grand waterways with the Caspian and Black seas, and railroads have already been or are being constructed between the city and Berlin, etc., Warsaw, Cracow, Vienna, etc., and Moscow and Odessa. Within a short distance from St. Petersburg are several fine palaces, the occasional residences of the court, the most splendid of which is Czarskoeselo (the Versailles of Russia), about fifteen miles to the south.

ST. ISAAC'S SQUARE AND SENATE HOUSE, ST. PETERSBURG.

39. Riga, on the Duna, about seven miles from its mouth in the Gulf of Riga, is the second commercial city of the Empire. It is a strongly fortified place, and was formerly one of the chief Hanseatic towns. The city contains many fine edifices, and has various scientific and educational establishments, an observatory, etc. Ships of larger draft than 12 to 15 feet stop at Bolder-aa, a small port outside the bar at the mouth of the river. Revel, on a small bay on the south side of the Gulf of Finland, is a strongly fortified sea-port. The harbor has been materially improved, and its roadstead is well sheltered by islands. Large quantities of corn, spirits, hemp, flax, lumber, etc., are exported. It was formerly the great emporium of the Hanseatic League for the trade with Novgorod. Though chiefly commercial, Riga is also largely engaged in the manufacture of cotton cloth, refined sugar, tobacco, and beer. Helsingfors, on the north side of the Gulf of Finland, and nearly opposite Revel, has a fine harbor, and near it is the celebrated fortress of Sveaborg, consisting of seven fortified islands, which defend a magnificent harbor and naval arsenal. This fortress is deemed impregnable, and has not unaptly been called the Baltic Gibraltar. On the Gulf of Bothnia the chief towns are—Tornea, Uleaborg, and Vasa, each more or less engaged in trade. Dorpat and Mittau, the former in Livonia and the latter in Kurland, are chiefly noted for their literary institutions.

40. Archangel, on the north bank of the Dvina, near its mouth in the White Sea, was the only outlet for the productions of Russia before the founding of St. Petersburg. It still enjoys a great trade in exporting the productions of the northern provinces; but its harbor is closed by ice from September to July. The town is mostly built of wood.

41. Moscow, the former capital of the Empire, on the Moskva, 397 miles southeast from St. Petersburg, is situate in latitude 55° 45′ 13″ north, and longitude 37° 37′ 54″ east. It covers a large circular area, and consists of the Kremlin or citadel surrounded by other



KREMLIN, MOSCOW.

quarters inclosed by walls, beyond which are several suburbs. Since 1812 it has been rebuilt on a regular plan, but is still mostly of wood. The principal edifices were—the Kremlin, the ancient residence of the czars, and now replaced by a magnificent structure, the new Kremlin, completed in 1850, and comprising several palaces and ornamented with the finest statuary and sculptures; the Orphan Hospital, Bazaar, Cathedral, and the Church of the Annunciation in which the sovereigns of Russia are re-crowned; the Church of Ivan Veliki, with a belfry 269 feet high. The great bell of Moscow, the largest ever founded, 21 feet high, 20 feet in diameter, and weighing 1,600 tons, long buried under the soil, was raised and placed on a pedestal in 1836. Moscow is the residence of the wealthiest and most ancient noble families of the Empire, and the seat of several courts and public offices. The University, founded in 1705, has about a hundred professors, and is usually attended by about 1,200 students; and besides this the city possesses a large public library, an observatory, a botanic garden, and numerous scientific and literary institutions. It is the most industrious city of the Empire. Its principal manufactures consist of cottons, woolens, and silks, in which steam machinery is applied; and also carpets, jewelry, and trinkets. Its trade is immense, facilitated by water communication with the principal cities and the railroads to St. Petersburg and Odessa. There are numbers of other large interior cities, the principal of which are noted in the general table; but there are others which can not be passed without special notice, as Novgorod, Kief, Tula, Vologda, Tver, Jaroslaf, etc. These and many others are all more or less commercially and industrially of great importance, and the centers of a large inland trade. Nijnei-Novgorod is celebrated for its great annual fair.

42. Odessa is situate on the northwest coast of the Black Sea, overhanging a wide and beautiful bay, and is the principal port in this quarter of the Empire. Grain constitutes the most important of its exports. Odessa is a free port. Taganrog, on the Sea of Azof, is also a place of considerable trade. In the Crimea the principal places are Simferopol, Sebastopol, Bala-Clava, Eupatoria, Kertch, etc. Sebastopol, near the southwest point of the peninsula, was a strongly fortified town, with a fine citadel, and a roadstead so capacious, and with such

good anchoring ground, that the fleets of Europe might ride in it secure from every storm; and such is the depth of water that the largest ships may lie within a cable's length of the shore. There are besides five other small bays branching off in various directions, all equally commodious, and all lined with a series of capes naturally strong and easily defended. It was long the station of the Black Sea fleet, and no expense or labor was spared to make the place impregnable. It was, however, dismantled in 1856.

43. Kazan is a large and well-built city, not far from the Volga. It is a principal entrepôt of the trade of Siberia and the seat of important manufactures. It was formerly capital of an independent Tartar kingdom, and the Tartars still form a considerable and not the least industrious part of its inhabitants. Astrakhan, also the capital of an ancient kingdom, is built on an island at the mouth of the Volga. Favored by its situation, which enables it to communicate with the richest and most fertile parts of the Empire and with the shores of the Caspian, Astrakhan has become the entrepôt of the trade carried on by the Russians with Persia, Turkestan, and India. The citizens are also distinguished for their industry, and manufacture largely cotton stuffs, silk tissues, leather, etc. Orenburg, on the southeastern frontier, is the entrepôt of the trade with Bokhara and other states of Independent Tartary.

44. Warsaw, the capital of Poland, is situate on the Vistula, in the middle of a vast sandy plain. The city proper is ill-built, but the suburbs are fine and spacious, with wide, straight, and well-paved streets. Praga, the largest suburb, is situate on the right or opposite bank of the river, across which there is a bridge of boats. It is strongly fortified. Warsaw contains many fine public buildings, and has numerous scientific and literary institutions. It is the center of industry, commerce, and literary activity of the Kingdom, and the great entrepôt of commerce in Poland, and is connected northward with St. Petersburg, and southward with Prussia and Austria by railroads.

45. Authentic Russian history commences about the middle of the ninth century. Its earlier annals only furnish occasional glimpses of Scythian and other barbarous hordes roaming over its surface. About that time Ruric, a Baltic freebooter and probably a Dane, having been called in to aid the people of Novgorod, pursued a course then common with his class, and made himself master of a great part of the country. He was slain in 883 by Oleg, who seized Kief and made it the seat of his government. At this early period attempts were made to take Constantinople, but failed.

46. In 980 Vladimir married Anna, sister of Basil II., the Greek emperor, and in 988 embraced Christianity. His example was quickly followed by almost all his subjects. He was the first Russian sovereign to assume the title of Veliki-Knez or Grand Duke. At his death, in 1015, his sons quarreled in dividing his dominions, and a series of internal feuds commenced, which continued to distract the country for the next two centuries. The first appearance of unanimity was produced by a great common danger. The Tartars, who, under Genghiz-Khan had overrun many countries, appeared under his son (Toushi) on the southeast frontiers to the number of 500,000; and shortly after on the Kalka, near the Sea of Azof, gained a signal victory over the combined Russian princes. The sudden death of their leader prevented the Tartars from completing their conquest till 1236, when they returned headed by Batou (Toushi's son), wasted the country, and brought it entirely under their yoke. For 250 years the Tartars of Kapchak, who now fixed their Golden Horde or imperial residence on the Volga, held Russia in bondage. During this disastrous period the only part of the country which remained free was Novgorod, which had at this early period become an independent republic and of great commercial importance.

47. Under Ivan III., who began to reign in 1462, after several great struggles, the vassalage of the Tartars was thrown off, and in 1480 the Golden Horde ceased to exist, and the Tartars themselves were made tributary. During this reign the Poles and Lithuanians were also defeated; the minor principalities re-united, and Novgorod captured. Such, indeed, was the vastness of the achievements of this monarch, that he is considered as the founder of the Russian monarchy. His successor, Ivan IV., substituted the title of Czar for that of Grand Duke. In his time Siberia was added to the monarchy. On the death of Feodor, in 1598, the male line of Ruric, whose dynasty had furnished 56 monarchs, became extinct. Boris, the brother-in-law of the late Ivan IV., now gained the throne; but for several years the country became the prey of anarchy. The Poles and Swedes took advantage of this state of affairs, and made themselves masters of several provinces, when the national spirit was aroused, and Mikel Romanoff, a descendant of the female line of Ruric, after a severe struggle, was placed on the throne. From him the reigning dynasty is directly descended.

48. Alexis, who succeeded him, regained a part of the territories which the Swedes had taken. Feodor, his son, reigned from 1676 to 1682, and, dying without issue, was succeeded by Ivan and Peter, as joint sovereigns. Peter, who afterward acquired the surname of Great, became sole czar in 1689. Dying in 1725, his widow, under the title of Catherine I., ascended the throne, and, after reigning scarcely two years, was succeeded by Peter II., and he by Anne.

49. Elizabeth, Peter the Great's daughter, was called to the throne in 1740. During her reign Russia for the first time took a direct share in European politics, and sent an army westward beyond its frontiers. She died in 1762. Peter III. now mounted the throne, but after a sixth months' reign he was assassinated, and his wife, Catherine II., succeeded him. The most remarkable events of her reign are the wars with the Turks, in which the Russian arms were triumphant, and the dismemberment of Poland. Catherine was succeeded in 1796 by her son Paul, and he, having been assassinated in 1801, by Alexander, whose wisdom and valor make his reign one of the most illustrious in the annals of the Empire. He died, in 1825, without issue, and, his brother Constantine renouncing the succession, he was succeeded by Nicholas, under whom Russia acquired a more commanding influence in Europe than ever she possessed before.

50. The Emperor Nicholas died 3d March, 1855, and was succeeded by his son, Alexander II. The Eastern war, which had been begun and carried on by Nicholas, was determined under Alexander, after the fall of Sebastopol, by the Treaty of Paris, 30th March, 1857. By this treaty Russia ceded to Turkey a part of Bessarabia; the navigation of the Black Sea was neutralized, and the Danube declared to be a public highway. Sebastopol has since been converted into a commercial port, not again to be fortified.

51. Circassia, or Tcherkessia, is a country in the southeast of Europe, occupying the north slopes of the Caucasus and also a part of the south slope—the whole tract extending from the shores of the Black Sea nearly to the Caspian. Though nominally a portion of the Russian Empire, it is, in fact, an independent country, governed by its own chiefs. Its north frontier is formed by the Kuban and Terek rivers, of which all its streams are affluents. Area about 45,000 square miles. The surface is very mountainous, with numerous and extensive valleys, in which corn, wine, and most of the fruits of temperate climates are raised; but cattle rearing is the main branch of industry. The horses are small, strong, and active. The mineral products of the country comprise iron, lead, and niter. Trade and manufactures are wholly insignificant. There are no large towns, the inhabitants living in scattered villages. The people physically are among the finest of the human race, but very little civilized, and they have long been waging an obstinate, but what must ultimately prove an unsuccessful, contest against the Russians in their attempts to obtain dominion over the country. The population, consisting of independent but confederate tribes, numbers between 600,000 and 700,000 souls. The government is feudal and military.

[*Weights, Measures, and Moneys.*—A great diversity of local weights and measures are used in Russia. The following are official imperial, and the more important local standards:

Weights.—The lb. of 96 zolotniks or 9,216 dolis = 409.53 grammes = 6,321 grains Troy or 0.9030 lb. avoirdupois; 40 lb. = 1 pude or pood, and 10 pudes = 1 berkovitz. At Riga the lb. = 417.9 grammes or 0.9216 lb. avoirdupois; 400 lbs. = 1 shippond, and 12 shipponds = 1 last. At Revel the lb. = 430.4 grammes or 0.94896 lb. avoirdupois; 120 lbs. = 1 centner. In Poland the funt or lb. = 405.5 grammes or 0.89408 lb. avoirdupois; 160 funt = 1 centner.

Measures.—The archine of 2 feet or 16 verschoks = 711.1872 millimetres or 27.99 inches; 3 archines = 1 susche or sagene, and 500 sagenes = 1 verste or mile. The deciatine = 2,400 square sagenes. The vedro of 4 tschetwerki or 8 osmuschki = 12.29 litres or 3.24689 gallons; 3 vedros = 2 stekars = 1 anker, and 6 ankers = 1 oxhoft. The tschetvert of 2 osmins, 4 pojaks, 8 tschetveriks, 32 tschetvertkas, or 64 garniecz = 194.5562 litres or 5.52132 bushels; 16 tschetverts = 1 last. At Riga the ell = 548.2 millimetres or 21.58 inches; at Libau the ell = 537.6 millimetres or 21.16 inches; in Poland the lokieç = 576 millimetres or 22.67757 inches. At Riga the oxhoft = 217.8 litres or 57.54 gallons; in Poland the garnieç of 4 kwartas or 16 kwarterkas = 4 litres or 1.05676 gallon; 25 = 1 beczka. The Polish korseç of 4 cwierci or 32 garnieçs = 128 litres or 3.63252 bushels.

Moneys.—Accounts are stated in silver roubles of 100 kopeks; in Poland in zlotych of 30 gros, each of 10 pence; 15 kopeks = 1 zlotz. Gold is minted at the rate of 20.18 grains Troy, 917 fine to the rouble, and hence its value is $0.7978. The coins are pieces of 3 and 5 roubles. The silver rouble (320 grains 868 fine) = $0.74885, and in proportion for its subdivisions. There is a separate silver coinage for Poland, viz., the zlotz of 15 kopeks, valued at $0.112327, and its multiples 2, 5, and 10 zlotych. Russia also coins platinum in pieces of 12, 6, and 3 roubles, at the rate of 56.17 grains per rouble.]

TURKEY IN EUROPE.

1. Turkey in Europe, the most important although the least of the great divisions of the Ottoman Empire,* occupies a position between latitudes 38° 30′ and 48° 20′ north, and longitudes 16° 18′ and 29° 41′ east from Greenwich; and is bounded on the north by Austria and Russia, on the east by the Black Sea and the Bosphorus, on the south by the Sea of Marmora

* The Ottoman Empire comprehends all the countries in which Turkish supremacy is directly or indirectly recognized. Its vast territories, situated in three different quarters of the globe—in the southeast of Europe, the west of Asia, and the northeast of Africa—extend over 37° of latitude and 41° of longitude, and though scarcely admitting of being geographically defined as a common whole, may be considered as bounded on the north by the Black Sea, Russia, and Austria; on the west by Austria, the Adriatic, the Mediterranean, Algeria, and the African Desert; on the south by the Desert, Soudan, Abyssinia, and the Gulf of Bab-el-mandeb; on the east by Independent Arabia, the Persian Gulf, and Persia, and on the northeast by Transcaucasian Russia. The total area of the Empire is approximately estimated at 1,836,478 square miles, and the population at 35,350,000. The extent and population of the several grand divisions in Europe, Asia, and Africa are as follows:

Divisions.	Area, sq. m.	Population.	Pop. to sq. m.	Relative Area.	Relative Popula.
Turkey in Europe	203,628	15,500,000	76.1	11.1	43.9
Turkey in Asia	673,746	16,050,000	23.8	36 6	45.5
Turkey in Africa	959,104	3,800,000	3.9	52.3	10.6

As these divisions form subjects of separate consideration, in which the more important details of each are given, the sketch introduced in this connection will be of the most general description.

Turkey in Europe is of comparatively limited extent; but from containing the seat of government, and standing in closer relation to great European interests, is the most important of the whole. It still occupies the far greater part, and before the kingdom of Greece was dissevered from it, occupied nearly the whole, of the southeast extremity of the continent, consisting of an extensive peninsula, in the form of an irregular triangle, with Cape Matapan for its apex; the east shores of the Ionian Sea and the Adriatic for the one side; the west shores of the Archipelago, the Sea of Marmora, and the Black Sea for the other side, and the Save, the Danube, and east Carpathian Mountains for its base. The only part of European Turkey not contained within this triangle is Moldavia.

Turkey in Asia, taken in its widest sense, includes within its geographical limits the long belt of Arabia, which lines the east shore of the Red Sea. This country, however, being politically attached to Egypt, is seldom considered as forming a part of Turkey in Asia, which is usually confined to that part of the Asiatic continent which lies between the 31st and 42d parallels and the 26th and 48th meridians, and which is bounded on the north by the Black Sea, the Bosphorus, the Sea of Marmora, and the Dardanelles; on the west by the Archipelago and the Mediterranean; on the south by Arabia, and on the east by the Persian Gulf, Persia, and Transcaucasian Russia. The space defined by these boundaries has an area of 479,344 square miles, and a population of 15,150,000.

Turkey in Africa may be considered as an immense triangle, one side of which, facing on the north, is formed by the south shore of the Mediterranean, and another facing on the east by the west shore of the Red Sea and the Isthmus of Suez, while the base or third side is represented by an indefinite line drawn across the desert in a southeast direction from the frontiers of Algeria to those of Abyssinia. It originally included Algeria, which, though now a French colony, has never been formally dissevered from it, and still includes the three separate governments of Tunis, Tripoli, and Egypt, the last comprising not only Egypt, but also Nubia and Abyssinia. The aggregate area amounts to more than one half, but the population only to one tenth of the Empire.

The people, consisting of various races accidentally brought into juxtaposition or political relationship by immigration and conquest, present none of the kindred features which combine to form a national character. First in order are the Osmanli Turks, who, as the dominant race, are diffused over the Empire, though most numerously in Asia Minor, Armenia, and the southeast of European Turkey. By right of conquest they are proprietors of the

and the Dardanelles, the Archipelago, and the Kingdom of Greece, and on the west by the Ionian and Adriatic seas and the Austrian provinces of Dalmatia and Croatia. The greatest length of the country, east and west, is 680 miles, and the average width, north and south, about 380 miles; and the area is computed at 203,628 square miles.

2. In respect of physical configuration, Turkey in Europe has been not inaptly compared to a truncated triangular pyramid, which, rising with more or less rapidity from a very extensive base, forms at its termination the lofty plateau of Moesia. This central plateau, forming a kind of common nucleus for the highlands of Bosnia, Servia, Macedonia, and Albania, is of a quadrilateral shape, and sends off several mountain ranges in different directions. One of these, proceeding northwest between Bosnia and Herzegovina, becomes linked with a branch of the Dinaric Alps, and thus connects the mountains of Turkey with the Alpine system. Another range, branching off nearly due south, traverses the frontiers of Macedonia and Albania, and, under the name of Pindus, is continued through Thessaly into Greece. A third range proceeding east, forks on reaching the common junction of Macedonia, Bulgaria, and Rumelia, and forms two distinct branches, one of which, under the name of Balkan, Hæmus, or Emineh-dagh, proceeds east-northeast toward the Black Sea, while the other proceeds southeast, under the name of Rhodope or Despoto-dagh. None of the heights of these chains reach above 10,000 feet in their highest culminations.

3. Besides these principal chains, which form the great watersheds and furnish the sources of the most important rivers of the country, there are numerous minor ramifications which often, maintaining a parallelism to the central axis, form a series of descending terraces with intervening valleys, while in other directions the mountainous districts are succeeded first by hills, and then by wide and open plains. Of these plains by far the largest is that of the lower basin of the Danube, embracing the greater part of Wallachia, and considerable portions



PLAINS OF WALLACHIA.

of Moldavia and Bulgaria, and finally sinking down in the latter into the lagoons and pestilential swamps of the Dobrudscha, the tract comprised within the last great bend of the Danube, and stretching south from that river to Trajan's Wall, which strikes the shore of the Black Sea at Kustendji. Other plains, far less extensive than the former, though equaling it in fertility and surpassing it in beauty, occur in the south of Macedonia, the southeast of Thessaly, and the southwest of Albania.

4. The number and irregularity of the greater and minor mountain ranges render the system of drainage very complicated, and divide it into four principal, together with a greater number of subordinate, basins. By far the most important is that of the Black Sea, into which the Danube—augmented on its right bank by the Save, with its tributaries Unna, Verbas, and Drin; by the Morava, Timok, Isker, Vid, and Osma; and on its left bank by the Schyl, Aluta, Argish, Jalomnitza, Sereth, and Pruth—pours the accumulated waters of more than half of the whole country. Next in importance is the basin of the Archipelago, which receives the Selembria from Thessaly, the Indje Karu-su, Vardar, and Struma from Macedonia, and the Maritza from Rumelia. The Adriatic and Ionian seas, properly regarded as only one basin, bathe a large extent of the Turkish coast, but owing to the proximity of the mountain chains, receive from it no rivers deserving of notice, except the comparatively insignificant Albanian Drin, Scombi, and Vogatza. The fourth basin, the Sea of Marmora, receives only a few mountain torrents. Considering the mountainous character of the country, and its numerous perennial streams fed from snowy heights, it is remarkable that it does not possess a single lake worthy of the name, with the exception, perhaps, of those of Ochrida in the east, and of Scutari in the northwest of Albania.

5. Owing partly to the elevation of the surface, and partly to its exposure to the northeast blasts from the interior of Russia, the climate is not so mild as its latitude might seem to indicate, and is, moreover, subject to sudden and violent fluctuations. The Danube regularly freezes, and snow several feet deep remains nearly half the year on the loftier mountains of the Danubian provinces. The olive will not grow in the latitudes which in Spain and Italy are found to be most congenial to it, and much hardier plants are often nipped by keen frosts after the season has considerably advanced. On the other hand, the summer heat is excessive, especially in Albania, and other districts which possess a north shelter, and even in the more exposed districts the vintage becomes general before the end of July. For the production of the ordinary cereals, no part of the world is more admirably adapted. The only great exceptions to the general salubrity of the climate are produced by the miasmata of some low swampy tracts of no great extent, and by occasional visitations of the plague.

6. The geology of the country has not been fully or accurately explored, but so far as yet known, it does not appear to be much distinguished either by the variety or the value of its mineral products. Primary fossiliferous strata occur only in isolated spots, and that part of the secondary formation where the coal measures ought to be found, is believed to be altogether wanting. On the contrary, the upper part of the secondary formation, including the cretaceous system, is very largely developed; the limestones, sandstones, and other rocks belonging to it, compose almost the entire stratification of extensive tracts, particularly in the west. Tertiary formations also prevail both in the east and in the basin of the Danube, and along almost all the large rivers, and at the mouths alluvial deposits of more or less thickness are usually found. Crystalline schists, composed of gneiss and mica, and chlorite slates are, if not the most largely, the most conspicuously, developed of all the rocks, inasmuch as they form the great bulk of the loftiest mountain chains. In connection with the schists, granite also is of frequent occurrence, and is sometimes seen piercing the gneiss at high elevations. No evidence of active volcanic agency anywhere appears, but the important part which it must have performed in giving the country its final configuration is indicated both by the existence of thermal springs and by the masses of trachyte and other volcanic products which cap some of the summits both of the Despoto and the Tcher-dagh. Many of the veins which traverse the crystalline schists have been ascertained to be highly metalliferous; and lead, yielding a considerable per centage of silver, has at different periods been actually worked. Iron also, of the best quality, is very abundant.

7. A great difference exists between the vegetation of the provinces within the great basin of the Danube and those to the south of the great central mountain chains. In the former the forests consist of the pine, the beech, the oak, the lime, and the ash; besides which apple, pear, cherry, and apricot trees cover the whole of extensive districts. In the southern provinces the above trees are confined to the sides of the mountains, while the lower grounds exhibit the plane, maple, carob, almond, sycamore, walnut, and chestnut, besides the myrtle and laurel and other evergreens. To the south of the 40th parellel the olive becomes the most common fruit-tree, the fig and mulberry are abundant, and the orange thrives in the sheltered plains. In the plain of Scutari (south of the lake of that name), the most fertile part of Albania, all the fruits met with in the southern countries of Europe are grown in abundance, as well as every kind of grain, with the exception of rice.

8. The vine is grown over the whole of Turkey, but the fruit produced in the northern provinces is inferior in quantity of saccharine matter to that obtained on the shores of the Archipelago. The south base of the Balkan range is remarkable for the exuberance of its vegetation, which consists of gardens of roses, jasmine, and wild lilac, vineyards, and forests of all kinds of fruit-trees; and the plain of Adrianople is distinguished for the abundance of its roses, from which the celebrated "attar" or otto of roses is distilled.

9. The extensive forests give shelter to numerous wild animals, among which are wild boars, bears, wild oxen, deer of various kinds, mountain goats, lynxes, wild cats, foxes, and wolves. A species of wolf smaller than that of the hills frequents the plains bordering on the Danube, and finds shelter in the marshes or among the reeds. The partridge and the bustard abound in the valleys, and game is plentiful in the mountainous districts of Albania. Of domesticated quadrupeds the sheep and the goat are the most numerous, the latter especially in Albania and the other mountainous districts; and large herds of cattle are reared in the provinces bordering on the Danube, and horses in Moldavia and Thessaly.

10. The territories of European Turkey are classified as *immediate* and *mediate*, the former term denoting those in which all the rights of sovereignty are exercised directly by the Sultan, and the latter those in which the sovereign rights are modified and restricted by others legally secured to the local governments. These mediate territories, comprising the three principalities of Moldavia, Wallachia, and Servia, have an aggregate superficial area of 65,363 square miles, or very nearly a third of the whole. The immediate territories exhibited in the table, in conformity with the subsisting division, are arranged under the four eyalets of Rumelia,

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greater part of the soil, and fill all the civil and military offices. They live generally in towns, employed in various trades, and are never found as agriculturists, except in districts where they have settled in great numbers. Accustomed to obtain their wives and supply their harems from other races, they now constitute a very heterogeneous mixture, retaining few of the leading features of their ancient national character. To the Turkish stock belong also the Turcomans, who lead a nomadic life in Armenia and the center of Asia Minor.

Among Semitic races the first place is due to the Arabs, who, not confined to their native Arabia, form a considerable element in the population of Syria, Palestine, and the lower basin of the Euphrates, and constitute a great majority in Egypt. More or less allied to them are the Maronites and Druses in Lebanon, the Motualis in Cœlo-Syria, the Ansarieh or Nossairi in North Syria, the Nestorians or Chaldeans in the highlands of Koordistan and Mesopotamia, and the Jews, who are scattered over all parts of the Empire, but have their favorite seats in Syria and Palestine.

To the Caucasian stock belong the Armenians, who, besides forming at least a third of the population in their native Armenia, are diffused as traders throughout all the larger towns; the Mohammedan Koords, apparently Persian, though their language bespeaks a very mixed origin; the Yezidis, chiefly inhabiting the mountains in the north of Mesopotamia; the Greeks, forming the bulk of the population in Asia Minor, Thessaly, Macedonia, and the islands, and constituting, to a very considerable extent, the mercantile and trading community of Turkey, more especially in the sea-ports; the Arnauts in the south and toward the coasts of Albania; the Wallachians or Roumains, who not only occupy Wallachia and Moldavia, but are found under different names in most provinces of European Turkey; and lastly, the races of Sclavonic origin confined exclusively to the European part of the Empire, but so numerous as to form almost the entire population of the territories between the Balkan and the Danube. To complete this long list of races, it is necessary to add the gipsies, widely diffused, and especially numerous in Moldavia and Wallachia, where their condition is one of complete slavery; the Berbers, abounding in Tripoli, Tunis, and part of Nubia, and the negro tribes of Kordofan, Sennaar, and Darfur.

The following table exhibits a summary of the population of the Empire, classified according to religion:

Creeds.	In Europe.	In Asia.	In Africa.	Total.
Mohammedan	3,800,000	12,950,000	3,800,000	20,550,000
Greeks and Armenians	11,370,000	2,360,000	—	13,730,000
Roman Catholics	260,000	640,000	—	900,000
Jews	70,000	100,000	—	170,000

—and the following classifies the various races:

Races or Tribes.	In Europe.	In Asia.	In Africa.	Total.
Osmans	1,100,000	10,700,000	—	11,800,000
Sclavonians	7,200,000	—	—	7,200,000
Roumains	4,000,000	—	—	4,000,000
Arnauts	1,500 000	—	—	1,500,000
Greeks	1,000,000	1,000,000	—	2,000,000
Armenians	400,000	2,000,000	—	2,400,000
Jews	70,000	100,000	—	170,000

Races or Tribes.	In Europe.	In Asia.	In Africa.	Total.
Tartars	230,000	—	—	230,000
Arabs	—	900,000	3,800,000	4,700,000
Syrians and Chaldeans	—	235,000	—	235,000
Druses	—	25,000	—	25,000
Kurds	—	1,000,000	—	1,000,000
Turcomans	—	90,000	—	90,000

As illustrative of Turkish geography the explanation of the following list of words of frequent occurrence will be useful:

Aghach or Agadj—*a tree.*
Ak—*white.*
Altun—*golden.*
Bactche or Bagtché—*a garden.*
Bala—*upper.*
Balkan—*a chain of hills.*
Bashi—*a head.*
Bazaar—*a market.*
Bendt—*a reservoir.*
Bournu or Burun—*a cape.*
Bunar—*a spring.*
Buyuk—*great, large.*
Chai—*a river.*
Dagh or Tagh—*a mountain.*
Davan—*a mountain pass or range of mountains.*
Demir—*iron.*
Denghiz or Dengis—*a sea or lake.*
Derah, Dereh, or Deré—*a valley.*
Deir—*a convent.*
Diyar—*tents.*
Egri—*crooked.*
Eski—*old.*
Ghieul, Gol, or Kol—*a lake.*
Grada or Grade—*a fortress.*
Gumish—*silver.*
Hissar or Hisar—*a castle.*
Ieni or Yeni—*young, new.*
Ilijah—*hot springs.*
Jik—*sign of diminutive.*
Kalch—*a castle.*
Kapi or Kapousi—*a gate.*
Kara—*black.*
Kasbah—*a market town.*
Kaanah—*a house.*
Keban—*a gorge or pass.*
Keliseh or Kelisah—*a church.*
Keui, Kieui, Kioy, Koi—*a village.*
Kizil—*red.*
Koom—*deserts, sandy plains.*
Koulassi—*a tower.*
Kopri or Kupri—*a bridge.*
Kutchuk—*little.*
Liman—*a bay.*
Maden—*a mine.*
Menzil—*an inn.*
Oosek—*high.*
Ovah—*a plain.*
Palanka—*a stockade.*
Phanar or Fanal—*a light-house.*
Planina—*a chain of hills.*
Sari—*yellow.*
Serai—*a palace.*
Shehr—*a town.*
Skellessi—*steps, a landing.*
Sou or Su—*a water or river.*
Tel—*a mound.*
Tuzlah—*a saltern.*
Yeni—*young, new.*
Yeshil—*green.*

Bosnia, Silistria, and Dschesair; but another division, though no longer recognized by the government, still retains its place in most of our maps and geographical works. In this division the mediate possessions are given as already mentioned, but the immediate are represented as consisting of the provinces of Bosnia, Croatia, and Herzegovina in the northwest; Montenegro and Albania in the west; Thessaly in the south; Bulgaria and Rumelia or Thrace in the east; and Macedonia toward the center. To facilitate comparison, it may be necessary to mention that in the table the eyalet of Rumelia is nearly identical with Montenegro, Albania, Thessaly, Macedonia, and the northwest of Rumelia; that of Bosnia with Bosnia proper, Croatia, and Herzegovina; that of Silistria with Bulgaria and the northeast and east of Rumelia; and that of Dschesair with the southwest of Rumelia and the adjacent islands in the north of the Archipelago.

11. The following table of the names and extent of the eyalets and sanjaks, reduced from "Dieberici's Mittherlungen des Statistischen Bureaus in Berlin" (1853, No. 18, pp. 276–279), is believed to be approximately accurate:

IMMEDIATE POSSESSIONS.

Sanjaks.	Area, sq. m.
EYALET RUMELIA:	
Sofia	12,229
Ianina	4,492
Salonik (Salonica)	6,955
Trikala	5,264
Akutara or Scutari	1,880
Montenegro (independent)	1,552
Ochrida	2,218
Aulona or Valona	4,264
Kustendil	7,875
Uskup	1,738
Weltscheterin	797
Vitoglia or Monastir	5,912
Perserin or Prisrend	1,465
Akhissar or Croja	3,476
Ilbessan or Elbessap	1,376
Total Rumelia	61,493

Sanjaks.	Area, sq. m.
EYALET BOSNIA:	
Banjaluka	5,176
Travnik	9,233
Zwornik	3,339
Srebernik	2,848
Herzek or Herzegovina	6,446
Total Bosnia	27,042
EYALET SILISTRIA:	
Widdin	4,421
Nikopolis	10,423
Silistria	12,157
Tschirmen	3,270
Kirklissa	3,209
Wisa	3,092
Total Silistria	36,572

Sanjaks.	Area, sq. m.
EYALET DSCHESAIR:	
Gallipoli	9,269
Candia, with Gozzo, Standie, and other small islands in the vicinity	3,269
Island of Thasos	168
" Samothraki	76
" Imbro	116
" Lemnos	197
" Strati	14
Total Dschesair	13,109
TERRITORY OF CONSTANTINOPLE	53
Grand Total IMMEDIATE	138,265

MEDIATE POSSESSIONS.

Sanjaks.	Area, sq. m.
SERVIA:	
Semendria	12,002
Novibazar	2,595
Kruschwatsch	5,520
Pristina	1,172
Total Servia	21,289
MOLDAVIA	15,696

Sanjaks.	Area, sq. m.
WALLACHIA:	
Great Wallachia	19,631
Little Wallachia	8,747
Total Wallachia	28,378
Grand Total MEDIATE	65,363

—the total extent, immediate and mediate, being 203,628 square miles.

12. The population of European Turkey is of essentially different construction to that of the Asiatic territory. In the former, the Osmans are in a vast minority, forming less than one in fourteen of the whole; in Asia, they form at least two thirds of the population. Otherwise, the inhabitants of European Turkey are composed of Sclaves, nearly one half of the whole; Roumains, more than a fourth; Arnauts, a tenth; and Greeks about a fifteenth. Besides these there are about 400,000 Armenians, 230,000 Tartars, and 70,000 Jews. The total population is 15,500,000, distributed approximately as follows:

Thrace	1,800,000	Wallachia	2,600,000	Servia	1,000,000
Bulgaria	4,000,000	Bosnia and Herzegovina	1,400,000	Islands of the Archipelago	700,000
Moldavia	1,400,000	Rumelia	2,600,000		

With regard to religion, 3,800,000 are Mohammedans, 11,370,000 Greeks and Armenians, 260,000 Roman Catholics, and 70,000 Jews.

13. In the general industry of the country, agriculture, commerce, and trade command a marked position. Mining is a branch in which little has been accomplished. All these, however, except commerce, owing to the general insecurity of every kind of property, the natural intolerance of the Orientals, their pertinacious adherence to antiquated customs, the absence of means of communication, and various other causes, are in a very neglected condition, and yield a mere fraction of the profitable returns which, under more favorable circumstances, might easily be obtained from them.

14. Turkey is not dependent upon any foreign country for the subsistence of its inhabitants; it yields, on the contrary, corn and other produce sufficient not only for the home demand, but also for exportation. Agriculture is, however, in a very backward state throughout most parts of the Empire. In Thrace the rotation of crops is tolerably well understood, but elsewhere cultivation is extremely depressed. Manuring is next to unknown, and in the mountainous parts, particularly in Servia and Albania, an immense waste of timber occurs, from the forests being burned that the ground may be fertilized by their ashes. The plows (except perhaps in Wallachia and a few other provinces) are of the most wretched description, being seldom shod with iron, and fit only to scratch the surface of the earth; a bunch of thorns performs the functions of a harrow; and the other farming implements, if so we may call them, are in general equally bad. Thrashing is performed, as in most Eastern countries, by treading out the grain with cattle, the straw being subsequently chopped by dragging over it a sort of heavy cylinder armed with sharp flints. But the fertility of certain portions of the Empire, as Thessaly, the valley of the Maritza, etc., is so great that, despite the low state of husbandry, the average produce of corn is said to be unusually large.

15. Maize is the principal species of grain cultivated in European Turkey, in the mountain valleys as well as the plains, except in Bosnia, etc., where the climate is too cold. Wheat, rye, barley, oats, and buckwheat are also pretty generally cultivated, and millet is grown in the more sheltered places. Rice is grown only along the banks of the Maritza and other marshy tracts in the southern provinces. Haricots, beans, cabbages, onions, melons, cucumbers, tomatoes, capsicums, etc., are raised as articles of food; but the potato is eaten only in Bosnia, Croatia, Herzegovina, Montenegro, and a few places in Servia and Albania.

16. Though not usually drank by the Mussulmans (except those of Lower Albania), wine is grown in most provinces of Turkey in Europe, but Wallachia and Moldavia, Bulgaria and Servia, are the principal wine countries. Turkish wines are mostly red; white wine is produced only in Wallachia, western Bulgaria, and at Semandria, and a few other places. The best wines are very high colored, and are grown chiefly in Macedonia, in the basins of Scutari and Prisrend in Albania, Mostar in Herzegovina, on the hills along the Servian Morava in Thrace, and in the vicinities of Lovdscha in Bulgaria, and Meteora in Thessaly. In Bosnia the vine is replaced by the plum, and the favorite beverage there is a liqueur made from its juice, called "slivovitza." Peaches, apples, cherries, almonds, hazel-nuts, etc., are grown, but grafting and all other horticultural operations are either unknown or much neglected. The olive flourishes in the southern provinces only, and most of the Turkish oil is grown in Asia. Flax, hemp, sesamum, saffron, cotton, tobacco, castor oil, and madder are among the principal remaining articles of culture.

17. The care of the forests does not seem to occupy much attention; and in many districts, formerly well wooded, wood for fuel is becoming scarce. Live hedges are rare; where the fields are inclosed it is either with dry wood or stone walls, and where neither material is plentiful, as in eastern Thrace, the fields are entirely open.

18. There are in Turkey great numbers of sheep and goats, the flesh of which constitutes the principal animal food of the inhabitants; but there are proportionally fewer cattle than in other countries of Europe, beef being seldom, and veal never eaten by the Turks. The sheep are nearly all of a small, thick-bodied breed, with a white fleece; merino, large-tailed, or other improved breeds, are met with only in Servia or in Bosnia. In Wallachia the sheep have tall spiral horns, and their wool is a principal source of wealth. The pastures there are fine and extensive, and large flocks are brought thither from Transylvania to be depastured during winter. The cattle along the banks of the Save and Danube appear to be a degenerate Hungarian breed. Those of the more southern provinces are different, being of medium size and short horned. Oxen are everywhere employed in field labor. Buffaloes are common, particularly in Bulgaria and Thrace. In Bosnia and other western provinces some tolerably good cheeses, similar to Gruyère, are made. In making cheese, the milk of ewes and goats is partially employed, but in general only in the absence of that of the cow and buffalo. Turks abhor the hog so much that they do not generally permit its sale in the towns, where they form the chief proportion of the population. Nevertheless they are reared in vast numbers in Servia, Bosnia, and other northern and western provinces, and, in fact, constitute the chief resources of the Servians. The horse of European Turkey is generally of middle size, or rather below it, with a short neck, strong limbs, and a bay, chestnut, reddish brown, or white, seldom a gray color. The ass is much used in Rumelia, southern Albania, etc. Mules are scarce in those provinces, but very numerous in Montenegro and other mountainous parts.

19. In Turkey the cultivators do not live dispersed over the country in hamlets or in isolated farm-houses, but are congregated in villages, which, owing to the depopulation of many districts, are frequently at great distances from each other. These villages present a very striking picture of primeval manners, each family providing itself with most articles required for its consumption, while their municipal affairs, or those in which the community have an interest, are conducted by their elders. The village communities in certain districts enjoy considerable power; and whenever this is the case, or where a tract of country happens to belong to a powerful individual, the cultivators, speaking generally, are comparatively prosperous. This, however, is the exception; oppression and a want of security being the usual consequence of the system under which the property in the Empire has been distributed. Much, again, for the weal or woe of the cultivators, depends on the individual character of the lords in possession.

20. There are mines of copper, argentiferous lead, iron, etc., in various parts of European Turkey; and it is generally believed that several of the mountain chains which bound or intersect the Turkish provinces contain ores, not only of the useful, but of the precious metals. The Wallachian and Moldavian gipsies collect from the beds of the river pellets of gold mixed with a small quantity of silver. Asphaltum, niter, salt in Wallachia, etc., and coal in Bulgaria, are among the mineral products.

21. The manufactures of Turkey are more numerous, and display greater excellence, than might have been expected in a country so backward in the arts; indeed, her success in manufacturing industry is, upon the whole, greater than that of several countries ranking higher in civilization. The crapes and gauzes of Salonica, and the printed muslins of Constantinople establish a favorable, but not an unfair criterion of their general skill and industry. The workmen of Constantinople excel those of France in many of the inferior trades. They still practice all that they found practiced; but, from an indolence with respect to innovation, they have not introduced or encouraged several useful or elegant arts of later invention. They call in no foreign assistance to work their mines; from their own quarries their own labor extracts the marble and more ordinary stone which is employed in their public buildings. Their marine architecture is by no means contemptible, and their barges and smaller boats are of the most graceful construction. Their foundery of brass cannon has been much admired, and their musket and pistol barrels, and particularly their sword-blades, are held in great estimation even by foreigners. Their manufactures of morocco and other leather, and of gold and silver lace, etc., deserve also to be mentioned with praise. The domestic manufacture of cotton and woolen stuffs in Turkey is pretty general; and the making up of these materials occupies a large share of the peasant's in-door labor. Handkerchiefs, shirting, long-cloths, napkins, coarse cotton stuffs, and clothing in general are the goods principally produced by their looms.

22. A mere glance at the map must convince us that countries possessed of so many valuable products, and in consequence both of their position and the extent of their coasts and inland seas, accessible at so many points both from the West and East, must, under any circumstances, command a very extensive traffic, both direct and transit. It is observable, moreover, that by means of the commercial policy which the Turks have adopted, this traffic has been allowed to develop itself with greater freedom than it could have enjoyed in most European states. In the heavy duty of 12 per cent. rigidly exacted on all exports, with the important exception of wheat, which by a firman, in 1837, was declared free, we see a genuine result of Turkish barbarism; but in the opening up of the coasting trade to the competition of all nations, and the unlimited admission of all imports on the payment of a duty never exceeding 5 per cent., Turkey may claim the merit of having taken a lead in reforming the commercial system of the world. The full working of this system is necessarily cramped by the impolitic restriction on exports, but in every quarter of the Empire we behold ports and commercial emporiums, in which a vast amount both of home and foreign trade is concentrated. Among the most important of these are Constantinople, Adrianople, and Salonica in Europe. The exports consist chiefly of olive oil, attar of roses, silk and silk goods, cotton, sheeps' and goats' wool, grain, tobacco, drugs, opium, leeches, etc., and in 1852 were valued

at $51,872,240. The imports for the same year, consisting chiefly of cotton, woolen, and silk goods, metals, iron, steel, and glassware, colonial produce, coals, cordage, Indian and Chinese goods, fancy goods, etc., were valued at $59,115,485.

23. In traveling, the distance is commonly estimated by the hour, which affords a very uncertain criterion, but may on average contain about three miles. This mode of estimating distance makes it almost unnecessary to observe, that in regard to means of internal transport, Turkey is still in the rudest state possible, and only a few of the principal roads are constructed so as to admit of wheel carriages. The different races of the population are thus kept aloof from each other, cooped up within their natural barriers, and the products of one district are often perishing from want of consumers, while the inhabitants of another district may be suffering severely from inability to obtain them. Nothing seems better calculated to develop the internal resources of Turkey, and even further the cause of good government, by favoring the amalgamation of its hostile races, than the establishment of a system of good roads. Neither railroad nor canal exist throughout the Empire.

24. The government of Turkey is an absolute despotism. The monarch, usually designated by the titles of sultan or grand seignor, khan, and padishah, is regarded by the Turks as the khalif or head of Islam. His edicts bear the name of Hatti-scherif, and his government is often designated generally as the Sublime Porte. The sovereignty is hereditary in the family of Osman, the presumptive heir being the eldest son who is born to the sultan after his accession to the throne. On a new succession, the sultan is not crowned, but is girded with the sword of Osman in the mosque of Ejub at Constantinople, after swearing to defend Islam. His dignity is considered to be too transcendent to allow him to enter into the married relation, and he has therefore no proper wives. Among the females of his harem, however, there is a gradation of rank. From four to seven, bearing the title of kadin, take precedence of all the others, while a still higher place and influence are assigned to the mother of the sultan and of the presumptive heir to the throne.

25. The public officers who conduct the administration under the sultan are divided into three classes. The first class is that of law, which, being founded entirely on the Koran, makes no distinction between religious and civil, and, accordingly, includes all persons who discharge either ecclesiastical or judicial functions. At their head is the Sheikh-ul-Islam, usually called Mufti; and subordinate to him are Mollahs, Cadis, Imans, and Ulemas. The second class consists of the officials of the pen or the members of administration, properly so called. At their head is the grand vizier or Sadr-azam, who is regarded as the center of all administrative functions, domestic and foreign. Subordinate to him are his vicegerent or deputy (Kaimakan), the Reis Effendi or minister of foreign affairs, the president of the council, the grand master of artillery, the minister of police, the minister of trade, agriculture, and public works, the Muteschar of the grand vizier who acts as minister of the home department, the superintendent of the civil list, the inspector of revenue, and the minister of pious endowments. The third class includes all the officials of the sword, or those who preside over the army and navy, the head of the former being the Seraskier or minister of war, and of the latter the Capudan Pasha or high admiral and minister of marine. The Sheikh-ul-Islam and the above ministers of the second class, together with the Seraskier and Capudan Pasha, constitute the divan or highest deliberative council.

26. The regular army consists of six ordus or divisions, divided into active or nizamie, and reserve or redif; and commanded by a field-marshal or mushir. The strength of the division is 20,980 men and 12 batteries. The regular active army, in 1855, amounted to 178,680, of whom 100,800 were infantry, 17,280 cavalry, 7,800 field and 5,200 fortress artillery, 1,600 engineers, 16,000 detached corps, and 30,000 gendarmerie. The army of reserve numbered 125,880 men; and besides these there are the irregular troops, composed partly of Tartars of the Dobrudscha and Cossacks of Asia Minor, but chiefly of Mussulman volunteers. The navy consists of 16 ships of the line, 14 frigates, 6 steamers, 12 corvettes, 4 brigs, and about 20 smaller craft, carrying about 4,000 cannon, and manned by 34,000 sailors and 4,000 marines. The only naval arsenal is at Constantinople, and the principal dockyards are at Sinope and Erekli in the Black Sea, and at Mitylene and Rhodes.



COSTUMES OF THE TURKISH ARMY.

27. The revenue of the Empire is derived chiefly from tithes (25), land and poll taxes (20), customs (15), pious foundations (10), and royalties (9) (lands, mines, salt-springs, fisheries, etc.), in the proportions respectively indicated, and amounted in 1855 to 790,000,000 piasters. This total is exclusive of the tribute paid by Egypt, Tunis, etc. The expenditures are in the following proportions—civil list (100), pensions (25), army (250), artillery (25), navy (60), justice (10), religion and public instruction (24), agriculture and public works (30), police (6), foreign affairs (10), internal government (160), finance, etc. (90). The public debt in 1854 amounted to 1,068,400,000 piasters, and has since been increased—in 1854 by a loan of £5,000,000, guaranteed by France and England, and in 1856 by a loan of £12,000,000.

28. The principal internal institutions of the Empire, the religious, educational, and judicial, must be very briefly noticed. Islamism is in every sense the dominant religion, inasmuch as it is not merely the only one established by the state, but affects to regard all others with contempt. Christianity, under the Greek form, is professed by a large majority of the Greeks, Wallachians, Bulgarians, and Serbs, and more partially by Bosnians and Albanians. The Roman Catholic church claims a considerable number of the last two, and also part of the Armenians, and a few Greeks. The Armenians generally differ from other Christian sects chiefly by their adherence to what is called the monophysitic system of doctrine. The Christians exceed in European Turkey three fourths of the whole population.

29. According to a system which had long been established, the Turkish educational institutions were only of two sorts, mexteb or elementary, and medresseh or high schools, the latter intended to prepare for the higher ecclesiastical and judicial functions. This system was greatly improved in 1847 by the introduction of a class of schools intermediate between the mekteb and the medresseh, and intended chiefly for the commercial classes. The present educational system, accordingly, now includes elementary schools, attendance at which is compulsory on all Mohammedan children who have attained their sixth year; middle schools, in which, among other branches, geography, history, geometry, and composition are taught; and colleges, arranged under the different heads of military, naval, medical, veterinary, agricultural, etc. Most of the medressehs and colleges have libraries attached to them, containing a respectable list of works in various branches of literature.

30. Justice is administered according to a code derived chiefly from the Koran, but partly also from tradition and custom, by a series of courts which descend by regular gradation from the Arz Odassi or most supreme court, divided into two presidencies, a European and an Asiatic, to the Mevleviets or high courts, each with jurisdiction over one or more districts; and numerous subordinate inferior courts, presided over by a mollah or kadi as proper judge, or by a naib or deputy. In these courts the forms are simple, and the decision is seldom long delayed.

31. Constantinople (Stamboul or Istampoli), the imperial capital, is picturesquely situate on an undulating declivity or series of gentle hills at the eastern extremity of a triangular promontory, having the Sea of Marmora and the Bosphorus on the south and east, and the

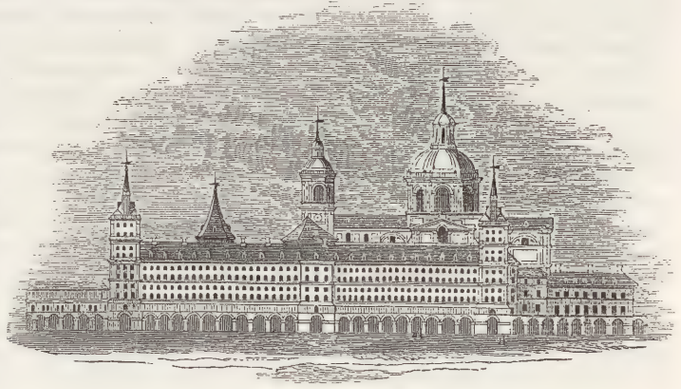


CITY OF CONSTANTINOPLE.

Golden Horn, an inlet of the latter of about six miles in length, on the north. It is thus surrounded with water on all sides except the west, and has a water-front altogether of about eight miles in extent. Taking the form of the ground on which it stands, the city is also triangular in shape, its apex projecting into the Bosphorus, and its base, a lofty double wall of four miles in length, stretching across the promontory from the Sea of Marmora to the Golden Horn. Each of the sides may be nearly four miles in length, and within these limits the city proper is included. Astronomically its position is in latitude 41° 0′ 18″ north, and longitude 28° 59′ 15″ east. On the opposite side of the Golden Horn, and also occupying the extremity of a promontory sometimes called the peninsula of Pera, are situated the extensive suburbs Galata, Pera, and Tophana.

32. The streets are extremely narrow, dark, dirty, and ill-paved, and so crooked and tortuous that hardly any two of them run for any length parallel with each other, the whole seeming one vast and incomprehensible labyrinth of filthy lanes. The houses are generally low and ill-built, consisting of wood, earth, and in some cases of rough, unhewn stone, with a far projecting roof, surmounted by a cupola. The windows are strictly closed with a lattice-work of cane, from which the women, excluded from public view, endeavor to see what is passing in the street. The city is supplied with water by public fountains, which are very numerous, and some of them extremely beautiful, having pure white marble façades, elaborate arabesque ornaments, and Chinese roofs; they generally stand in the center of an open place or square.

33. Altogether there are about three hundred mosques in the city, all of them more or less distinguished by grandeur and beauty; but the most remarkable are the imperial mosques, of which there are about fifteen. Of these the largest and most splendid is that of Suleimania, standing in the midst of a large square surrounded inside by an arcade upon pillars of granite and marble. Next to this in extent, but of much older date, is the mosque of St. Sophia, the pattern of almost every mosque in the land. All the other mosques are much less in size, but very much resemble them in plan and other features. All of them are enriched by splendid columns of marble, or Egyptian granite or



MOSQUE OF ST. SOPHIA.

serpentine, and have massive and highly ornamented gateways and porches, and handsome courts and cisterns for ablution.

34. On the extreme northeast point of the promontory, called Point Serai, is situated the Seraglio or palace of the Sultan, having the Bosphorus in front and the Golden Horn on the left, and commanding a magnificent view of the opposite shore, including the beautiful town of Scutari and its cypress-covered hills. The Seraglio, with its gardens and groves, includes a large square, and is washed by the sea for two thirds its extent. Having been enlarged and altered at various periods according to the taste or caprice of the princes and sultanas, it now consists of a conglomeration of buildings clustered together without order or design. Its apartments, however, are spacious and richly furnished. At the principal entrance is a large and lofty gate, called Babi-Humayon, the "high door" or "sublime porte," from which has been derived the well-known diplomatic phrase, all political business being transacted, as supposed, under this portal. Within the precincts of the palace is the celebrated "divan" and the "harem," with the "garden of delight," in which are numerous gorgeous parterres and pavilions; the latter are as bright with painting and gilding as the flowers which blossom on every side, while clusters of roses bloom in baskets of gilded wickerwork, and fountains murmur under the deep shade of overhanging boughs.

35. The bazaars of Constantinople are more numerous than remarkable; some of them are covered and others open. The covered bazaars have a somewhat mean appearance, resembling a row of booths at a fair, but the arrangement and manner of exposing the gay and glittering wares is sufficiently attractive. The principal or "Great Bazaar" consists of long avenues covered over with lofty arches of brick, lighted by apertures in the roof, and branching off in different directions. The ceilings of the vaults and various parts of the walls are ornamented with painted flowers and devices. On each side of the passage are counters and stalls, with a wide passage between them, and on each counter sits the merchant, generally smoking his pipe or cherbouk, with his crossed legs drawn under him. The bazaars, both open and covered, are severally allotted to particular trades and merchandise.

36. The city has but one remarkable square, that called Al-Meidan; it occupies the site of the ancient Hippodrome, a place at one time of great splendor, having been ornamented with marble colonnades and surrounded with seats like an amphitheater. The present area is an irregular quadrangle, about 260 yards long by 150 yards wide, and contains several obelisks which belonged to the ancient structure, one of which, of granite, is composed of a single piece 50 feet high.

37. There are upward of a hundred public baths in the city, mostly of marble, of plain exterior, but handsome and commodious within, with every accommodation and appliance requisite. They are divided into a number of circular rooms, lighted from above, and sufficiently spacious to admit a number of bathers at the same time.

38. Other important institutions of Constantinople are its coffee-houses, and lodging-houses, called "khans." These, dispersed throughout the city, are in vast numbers; and the latter, amounting to nearly 200 in number, resemble more closely than any other edifices stone barracks or inclosed squares. They are intended for the accommodation of strangers during their temporary sojourn, who may have in them an apartment, with command of the key, in which they may deposit their property and live themselves in perfect security without any further charge than a small farewell gratuity to the servant in attendance.

39. Constantinople has several charitable institutions, though none of them precisely resemble those of western cities in principle or management. The most remarkable are the "imarets" or kitchens of the poor. At these places bread, rice, and meats are distributed to such poor persons as have been furnished with a ticket by the trustees of the mosque or the imam of the quarter. Each imaret supports from 2,000 to 3,000 persons. There are besides large buildings having spacious and airy apartments appropriated to the reception of the poor and infirm, with gardens attached for their recreation. There is also a military hospital and a public hospital for lunatics—each religious sect besides having one for its own insane.

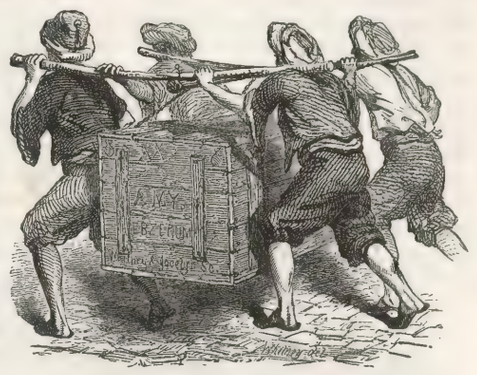
40. A marked feature in the internal economy of the city is seen in the extensive facilities enjoyed for education. It contains above a thousand elementary schools; numerous "medressehs," a kind of free schools, and thirteen seminaries attached to mosques for the study of law and theology, and maintained by the Sultan. Besides these ample means there are numerous special schools and associations for literary and scientific purposes. Among the former may be mentioned the Military College, where 300 students are lodged, fed, and instructed gratuitously; the school of mathematics and navigation; and to every barrack is attached a school for the young men entering the national service.

41. Connected with the mosques and colleges, or apart as distinct institutions, there are altogether in the city thirty-five public libraries, none of them containing less than 1,000, and some more than 5,000, manuscripts. The number of newspapers and periodicals issued in the city is thirteen, of which only two, the "Takoini-Wakai" or official table of events, and the "Jeridei-Havadis" or table of news, are in the Turkish language. Otherwise four are in French, four in Italian, and one each in Greek, Armenian, and Bulgarian.

42. The numerous cemeteries scattered through Constantinople, but mostly in its vicinity outside the western wall, are among its greatest ornaments. From their antiquity they have become vast forests, extending for miles round the city and its suburbs. The people of every creed have distinct quarters allotted them. The tombstones of the Turks are invariably of white marble. In sepulture the coffin is never used.

43. The few manufactures of Constantinople are chiefly confined to articles in steel, arms, morocco leather, saddlery, tobacco pipes, fez caps, etc.; but its foreign commerce is very considerable, and Constantinople is the great depôt of this branch of industry. The harbor or Golden Horn, which more resembles a large river than a harbor, is deep, commodious, well sheltered, and capable of containing 1,200 large ships, which may load and unload alongside its quays. It is about six miles long, and a little more than half a mile broad at the widest part, but its general breadth does not much exceed a quarter of a mile. At its entrance between Point Serai and the opposite shore the width is not more than 1,000 yards. The Horn is usually crowded with vessels and light boats, and presents a lively, bustling scene.

44. The social condition and every-day life of Constantinople present some curious phases. The streets are generally dull and deserted, all bustle and animation being confined to the bazaars. Many of the houses have no windows at all toward the streets, but only a long, narrow, dingy door, and where there are any they are latticed and closed. Till 1844–5 there were no lamps or lights of any kind in the streets; neither were the latter named nor the houses numbered. All this, however, has been remedied. Toward evening the coffee-houses are thronged, but at sunset the Turks retire to their homes and do not reappear until next day. The city is but indifferently supplied with means of public conveyance, the chief one being the "caiques" or wherries, the number of which plying on the waters has been estimated at 80,000. They may be hired like cabs in New York, are extremely light, elegantly constructed, and move with great rapidity. There are, besides the caiques, a class of large and heavy boats that ply regularly between the city and the opposite shores; and omnibuses have been recently introduced.



TURKISH PORTERS.

45. In all descriptions of the Ottoman capital, dogs form an important feature, and in this account must not be neglected. They are extremely numerous, acting as the city scavengers, feeding on the garbage and prowling along the edges of the water in search of carcasses that may be thrown on shore. No one owns them; they are public property, and their litters are never destroyed.

46. No Christian is allowed to reside permanently in the city proper—all foreigners, therefore, including ambassadors from foreign courts, reside on the opposite promontory on which Galata stands.

47. Galata, the largest of the suburbs of Constantinople, is the principal seat of commerce and the usual landing-place from the Sea of Marmora. It is here that the merchants of all nations have their stores and counting-houses. Here, too, are situated the arsenals, the dock-yard, the artillery barracks, the government docks, warehouses, ropewalks, and workshops, extending along the shore of the Bosphorus for nearly a mile and a half. It is an ancient city, and was once strongly fortified.

48. Pera occupies the more elevated portion of the peninsula of which Galata forms the maritime port. It is separated from the latter by a wall with gates, which are closed at night.

49. Tophana is situated a little higher up the Bosphorus than Galata, of which it forms a continuation. Here is a government foundery and arsenal for cannon, the two words "top" and "hana" signifying a cannon repository; and a spacious quay, the usual place of embarkation for Scutari and the villages on the Bosphorus.

50. Constantinople occupies the site of the ancient Byzantium. It was originally founded by Byzas, B. C. 656, and rebuilt by Constantine A. D. 328, who gave it his name. No city in the world has been subjected to such numerous and celebrated sieges, and no other has undergone so many vicissitudes of fortune. Yet it has only been taken twice—in 1204 by the Crusaders, who retained it till 1261; and by the Turks under Mohammed II., on the 29th May, 1453—the latter date closing the Roman Empire in the East.

51. The population of Constantinople is uncertain, but would appear, including its suburbs, to be somewhere between 700,000 and 800,000. A late estimate makes it 787,000, composed of Turks, Arabians, Greeks, Armenians, Jews, and Franks. In the latter class are included all the foreign residents from western Europe and the western world generally.

52. Adrianople (Ederneh), the chief town of Silistria, and the second city of the Empire, is built partly on a hill and partly on the banks of the Tundja, near its confluence with the Maritza, in latitude 41° 40′, and longitude 26° 36′, 137 miles northwest Constantinople. Formerly the suburbs were surrounded by a strong wall, which is now in ruins. It has an arsenal, cannon foundery, and numerous caravansaries and bazaars. The mosque of the Sultan Selim, considered one of the finest Moslem temples extant, is a splendid structure, with four lofty minarets and a richly decorated interior. The aqueduct, which supplies the city fountains with water, is also a noble structure. On the right bank of the Tundja, which is crossed by a fine stone bridge, is the old palace of the sultans, now much decayed. Adrianople possesses important manufactures of silks, woolens, and linens; has celebrated dye-works and tanneries, an active commerce in manufactured goods and the products of a fertile district. The chief outlet of this commerce is the port of Enos, situated on the south side of a bay at the mouth of the Maritza.

53. Salonica (Thessalonica), a large sea-port, and, next to the capital, the principal seat of commerce in European Turkey, is built at the northern extremity of the Gulf of Salonica, in latitude 40° 38′, and longitude 52° 27′. Standing on a hill slope, and inclosed by whitened walls, it has an imposing external appearance; and the city is commanded by a large citadel, termed the "Seven Towers." The lower portion of the walls are truly cyclopean, and one of its gates was built in honor of Augustus, after the battle of Philippi. Within the citade is another triumphal arch, erected by Marcus Aurelius. Otherwise it has numerous antiquities in good preservation; several of the mosques have been originally Pagan temples, and in the center of the city is the Hippodrome, a noble area entered by a magnificent colonnade of five Corinthian pillars. The mosque of St. Sophia is a handsome model of that of Constantinople. The bazaars are extensive and well supplied, and there are several flourishing silk-drawing factories. During the continuation of Napoleon's continental system, Salonica was an important depôt for English goods. It has still a large trade, and exports grain, timber, wool, sponges, raw silk, wine, tobacco, etc. Population about 80 000, of which 30,000 are Jews, 5,000 Turks, and the remainder Greeks and Franks.

54. Scutari (Iskanderyeh), on the Boyana, at the south extremity of the Lake Scutari, and 45 miles southeast of Cattaro, has about 40,000 inhabitants, half of whom are Roman Catholics. Immediately adjacent is a lofty height, crowned by a citadel, and containing an arsenal and barracks. Scutari has a large bazaar, many mosques, Greek and Roman churches, several bridges, ship-building yards, etc. Its manufactures are chiefly cotton goods and fire-arms; and its merchants are the principal traders in western Turkey. Sea-going vessels only

ascend the Boyana to Hoboth, some miles from Scutari, where are warehouses and a custom-house.

55. Bosnia-Serai, the chief town of Bosnia, is built on the Migliazza, an affluent of the Bosna, and contains about 60,000 inhabitants, of whom 40,000 are Turks, and the remainder Greeks and Jews. It is well built, and, though most of the houses are of wood, has a gay and pleasant appearance from the number of minarets and steeples with which it is embellished. It is defended by a strong citadel, and was formerly surrounded by walls, now in ruins. The manufactures consist chiefly of fire-arms, jewelry, leather, woolen goods, etc., and it is the principal entrepôt for the commerce of Turkey, Dalmatia, Croatia, and south Germany. In the vicinity are extensive iron mines and mineral baths.

56. Sofia (Triaditza) is situated in the midst of high mountains, between the rivers Isker and Nissava, on the route to Servia, 300 miles from Constantinople. It is meanly built, but is reputed to have 30 mosques and 10 churches, and has manufactures of woolen and silk fab-



GREAT KHAN AT SOFIA.

rics, leather, tobacco, etc. Population 50,000. Ichliman, 35 miles southeast Sofia, is a small town at the entrance of the famous pass of the Balkan, named "Trajan's Gate." Sumakov, 30 miles south-southeast Sofia, is an inclosed town of 8,000 souls, in a high valley, noted for its mines and flourishing works in iron. In the vicinity is the defile named Kis-Derbend.

57. Shumla (Marcianopolis) is a fortified city, stands in a gorge on the north declivity of the Balkan range, and being on the great route from Constantinople to Wallachia, it is one of the keys of the Turkish capital. On three sides it is inclosed by mountains, and is encircled by ramparts and a double fosse, strengthened by a citadel and strong redoubts on the adjacent heights. A rivulet divides it into the upper and lower towns; the former, chiefly inhabited by Turks, contains numerous mosques, some new barracks, and a town-clock having a bell which strikes the hour—a circumstance unique in Turkey. The city has flourishing manufactures of tin and copper wares, clothing, silk goods, and leather. The place has never been captured, although the Russians have on several occasions made the attempt.

58. Silistria on the right bank of the Danube, 58 miles north of Shumla, stands at the foot of a hill, is of semicircular form, and in general poorly built, consisting of narrow, winding, ill-paved, and dirty streets, lined with low and gloomy-looking houses. Its manufactures are inconsiderable, but it has an extensive trade, chiefly in wood and cattle, with vast magazines for storing grain. Its fortifications are strongly built of solid masonry, and strengthened by several detached forts of admirable construction and of the most formidable description. Silistria has, like Shumla, successfully withstood the attacks of the Russians, and, especially in 1854, proved itself to be one of the greatest strongholds of the Empire. Population 20,000. Nikopol (Nicopolis ad Istrium), on the Danube, 80 miles east Silistria, occupies a height, inclosed by ramparts mounting large cannon, and is further defended by a castle. It has several large mosques, baths, etc., but is generally ill-built; nor is its trade thriving. Population 12,000. The town was founded by Trajan. Sistova, 24 miles east-southeast Nicopol, and on the Danube, is also a fortified town, and contains 20,000 inhabitants. Widdin or Widin, on the Danube, opposite Kalefat, in Wallachia, and 60 miles higher up the river than Nicopol, is another of the strongly fortified towns of Bulgaria. Population 25,000. Below Silistria the principal Danubian towns are, Rossova, Hirchova, Matchin, Isaktchi, Tultcha, Allati, Dunavitza, etc., all of which are more or less protected by fortifications, and enjoy the benefits of the navigation and trade of the river.

59. Varna (Odessus) is situated at the mouth of the Pravadi, on the Black Sea, in latitude 43° 12′, and longitude 27° 56′—47 miles east of Shumla. It occupies a gentle height on the southwest side of a semicircular bay formed by two rock promontories, and is surrounded by a stone wall 10 feet high, which is loop-holed and defended by several batteries and other outworks. The town itself is wretchedly built, and the whole place has the appearance of decay. Nor are there any public buildings of note, except the mosques with their tall minarets. There is no proper harbor; but the bay, though open to the east, affords good anchorage. Immediately west of the town is Lake Denna, formed by the Pravadi and other streams from the hills. It has been proposed to make a navigable cut connecting this lake with the bay, and were this effected, Varna would have one of the best harbors in the Black Sea, and might soon rival Odessa as a port. Even at present it has a considerable trade, chiefly in grain. In 1854, about one fourth of the town was destroyed by fire, and a vast quantity of military stores destined for the Crimea consumed. Recently the port has been connected with Balaclava by a submarine telegraph 300 miles in length. There are numerous other ports of inferior pretensions along the southwest shore of the same sea.

60. Candia (Kriti or Kired, Crete), is a large island forming the southern limit of the Archipelago. It is almost wholly covered with lofty, rugged, and barren mountains. Ida, now Psiloriti, the loftiest peak, rises in the center of the island to 7,674 feet above the sea. The mountains abound in grottoes and caverns, and are clothed with the most valuable timbers. The chief productions are oil, silk, wine, fruits, honey, etc. The pastures are good and cattle abundant, and the grains are incidentally grown. Chief towns—Candia, Sitia, Ketimo, Canea, Kisamos, all on the north side; and Sphakia and Girapetra on the south. Candia is the capital. The other islands of the Archipelago belonging to European Turkey are enumerated in the general table.

61. Servia, Wallachia, and Moldavia comprise what are termed the "Mediate Possessions" of the Ottoman Empire. These are independent in all relating to internal affairs; but the sovereignty belongs to the Porte. Montenegro is also similarly constituted.

62. Belgrade, the capital of Servia, is an important fortified city on the right bank of the Danube, where it is joined by the Save, latitude 44° 18′ north, and longitude 20° 28′ east. It is the largest and best built town in Servia, and one of the strongest places in Europe. The citadel occupies a tongue of land between the rivers, and behind rises the city proper, with its antique edifices, a new cathedral, a palace, and barracks. The Turkish quarter, with the old palace, slopes down to the Danube; the Servian quarter, with the custom-house and consular residence, borders on the Save, which is lined by a good quay and rows of modern houses. Belgrade had formerly quite an Oriental appearance; but having become deserted by the more wealthy Turks, churches are superseding mosques, and the bazaars and dwellings have assumed more of the European aspect. The streets, however, remain as filthy, ill-paved, and unlighted, and the public baths and inns as wretched as when a Turkish city. It has manufactures of arms, carpets, silk goods, cutlery, saddlery, etc. The port is excellent, and is the entrepôt of the commerce between Austria and Turkey. Its trade is increasing. Population 38,000. Being the key to Hungary, Belgrade was long an object of fierce contention between the Austrians and Turks, and had been taken and retaken through a long series of years, between 1456 and 1791. Since the latter year it has remained with the Turks.



BELGRADE, FROM THE RIVER

63. Bucharest, the capital of Wallachia, is situated in a swampy plain on the Dimbovetza, an affluent of the Danube. Latitude 44° 25′ north, and longitude 26° 6′ east. It resembles a large village, the houses being surrounded with gardens and miserably built, chiefly of clay and wood. It has 95 churches, of which 93 are Greek, 26 monasteries, a foundling and six other hospitals, etc. There is no palace for the Hospodar, that of the Wallachian sovereigns having been burned in 1812. The city also contains a college, with about 450 students, a museum with a public library, and a central metropolitan seminary and 65 other schools, attended by 1,515 pupils. Bucharest is the entrepôt for the commerce between Austria and Turkey; its chief trade is in grain, timber, wool, salt, and wax. Population 60,788. Bucharest was taken by the Russians in 1769, and by the Austrians in 1789. The treaty of peace by which the Porte ceded to Russia Bessarabia and part of Moldavia was concluded



VIEW IN BUCHAREST.

here 28th May, 1812. In 1847 about a fourth part of the town was destroyed by fire, and in 1854 its vicinity was the scene of important military operations between the Russians and

Turks. In the same year it was occupied by Austrian forces. Ibraïla (Brahilov), a fortified town on the Danube, 13 miles south of Galatz and 103 miles east-northeast Bucharest, is the principal port of Wallachia, and appears to be rapidly increasing in importance. Its warehouses are extensive, and its harbor, which is entered annually by about 700 or 800 vessels, securely sheltered by a small island. Kalafat, opposite Widdin, on the Danube, is a strongly fortified town, and contains about 2,000 houses. The redoubts are of great extent and very strong, being partially raised on two high hills on the plain of Kalafat, about a mile distant from each other. All the neighboring country is commanded by these hills in such a way that no approach can be made to the Danube. It is a great entrepôt of trade.

64. Jassy or Yassy, the capital of Moldavia, is situated on an affluent of the Pruth, in a plain surrounded by low hills, 200 miles north-northeast Bucharest. Its houses cover a large space, being interspersed with gardens. The modern part is well-built and clean; but the older part is little more than a collection of ruins and huts, having been nearly destroyed by fire in 1822. It has several remarkable churches, a college, and several learned societies. As a commercial town it is important, and has a large trade in agricultural produce.

65. Galatz, on the left bank of the Danube, between the confluences of the Sereth and Pruth, is the chief seat of commerce. Latitude 45° 26′ north, and longitude 28° 3′ east. The older parts of the town consist of a series of narrow, filthy, and irregular streets, lined with wooden houses confusedly huddled together. In the newer quarters, however, there are numerous well-built houses of stone. The city contains several Greek churches, a convent, a hospital, and a large bazaar. The lower part contains vast warehouses, and from time immemorial has possessed the rights of a free port—a privilege which was extended to the whole city in 1834. It is the chief entrepôt between Germany and Constantinople.

66. Montenegro (Karadagh, *Turkish*—Tzernogora, *native*), though ostensibly a sanjak of the Ottoman Empire, is practically an independent state. The surface, as the name (black mountain) implies, consists of a succession of elevated ridges, diversified here and there by lofty mountain-peaks, some of them attaining the height of 5,000 or 6,000 feet, and in some parts looking like a sea of immense waves turned into stone. The whole territory, indeed, is wild and rugged in the extreme; but has also a few beautiful and verdant plains and valleys in which the soil is exceedingly fertile. The climate is comparatively cold, owing to the elevation of the country, but extremely salubrious; and in the sheltered valleys and plains the peach, olive, and vine ripen readily their fruits. Forests of valuable timber cover many of the mountain sides.

67. The Montenegrins are generally a tall and robust race, well-proportioned and well-featured. The women are often beautiful. In general they are of cheerful disposition, brave, and hospitable. The men go at all times fully armed. The Montenegrin mode of living is hardy and primitive. The houses are of stone, usually with thatched roofs, and are generally in village clusters, of which there are between 200 and 300 in the country; but there is only one town deserving the name, and that contains less than 1,200 inhabitants.

68. The chief occupations of the inhabitants are agriculture and fishing, the latter carried on chiefly in the Lake Scutari. Agriculture is in a very rude and inefficient state, and though every cultivable piece of land is planted with maize, potatoes, or some other useful plant, yet there is an insufficiency of food for the population. Sheep, goats, and pigs are reared in great numbers—the two former affording a profitable supply for exportation. Manufactures, with the exception of a coarse woolen stuff called "strucche," used for cloaks and blankets, and a few other articles of wearing apparel, are unknown; the women also embroider with the needle, and the shirt-sleeves and borders of their cloth dresses are neatly worked in silk and patterns of colored cloth. The exports of Montenegro are smoked mutton-hams, salted fish, wax, honey, hides, tallow, cheese, butter, dyewood, livestock, wool, fruits, etc.; and the chief imports, cattle, horses, salt, hardware, arms, glass, linen and cotton stuffs, fez caps, etc.

69. Montenegro is governed by a vladika or prince, who is at once a bishop, a judge, a legislator, and a commander-in-chief. The office is hereditary in the family of Petrovich-Njegosch. He is assisted by a senate of 12 members. The religion of the state is Greek non-united.

70. The Turks appear in the remotest periods thinly scattered over extensive Asiatic tracts, from the desert of Gobi to the Mediterranean, and from the north of Siberia to the Persian Gulf. Among the most powerful tribes were the Oghuzes, supposed to have been the parent race; the Seljukes who, by their extensive conquests, long ranked as the dominant race; and the Osmanlis who, though at one time threatened with extinction, suddenly rose to importance, and became the founders of the present Ottoman Empire. In 1224, when Soliman Shah was obliged to flee before the Mongols, they formed part of a body of 50,000 who quitted Khorassan and emigrated westward. After Soliman's death they became again scattered, but about 400 families attached themselves to Ertoghral, Soliman's youngest son, who entered the service of Aladdin, the Seljuk sultan of Konieh. In reward for their services against the Mongols and the Byzantine Greeks, a considerable tract of Phrygia, which had been wrested from the Byzantines, was distributed among them as Seljuk vassals. Toward the end of the thirteenth century they found themselves strong enough to throw off the vassalage, and in 1289, headed by Othman, greatly extended their possessions by brilliant successes against the Greeks. Othman was succeeded by Orchan, who, equal to his father as a warrior, surpassed him as a politician. In 1326 he took Brusa, which he made his capital; in 1327, Nicomedia; and, in 1330, Nicæa, the strongest of the Byzantine frontier fortresses, and was soon master of Asia Minor as far as the Hellespont. Orchan's successes were owing not more to his military skill and the valor of his troops, than to the discipline which he introduced by the creation of Janissaries, Spahis, and Zaims, long the great supports of the Osmanli power. He assumed the title of Padishah, a term of Persian origin, equivalent to king or prince; called the gate of his palace the "High or Sublime Porte," which has since become a common name of the empire which he founded; and obtained in marriage a daughter of the Greek emperor Cantacuzenos. His son Soliman, who predeceased him after giving great promise, was the first of his dynasty who obtained a footing in Europe by crossing over in 1357, fortifying Gallipoli and Sestos, and thereby obtaining the command of the Dardanelles. Orchan died in 1369, and was succeeded by his younger son, Murad I., who, in 1362, made Adrianople his capital, and, continuing his conquests, was soon master of a large part of what now forms European Turkey. The great victory gained in 1389 over the united Albanians and Sclavonic nations of the Danube confirmed his dominions, but cost him his life, and he was succeeded by his son Bajazet, who, in 1396, struck a blow at western Christendom, by the defeat of King Sigismund at Nicopolis, in Bulgaria, and reduced the Greek emperor to the degradation of paying him tribute. Shortly after, Bajazet's career was suddenly stopped by Timur, who completely defeated him at Angora in 1402, and afterward kept him prisoner for life. Timur divided the Osmanli territories among Bajazet's sons, but they again became united in 1413, under Mohammed I., who, after making the Empire more extensive than in the prosperous days of Bajazet, left it to his son, Murad II., whose numerous conquests and exploits were crowned by the annihilation of the Hungarian host in 1444. The most remarkable event in the reign of his successor, Mohammed II., was the taking of Constantinople in 1453. His grandson, Selim I., by driving back the Persians to the Tigris, conquering Egypt, Syria, and Palestine, and making himself master of Mecca, gave still further extent and vigor to the Empire, which, under his son and successor, Soliman II., surnamed the Magnificent, who succeeded in 1519, attained the summit of its prosperity. Even before his death, however, symptoms of decline became apparent, and under a series of successors, generally as deficient as his predecessors had been superior in talent, the downward progress has been very rapid. Unable to support its own weight, torn by internal dissensions, and continually preyed upon by formidable neighbors, especially Russia, it has lost province after province, and is mainly indebted for its prolonged existence to the interference of foreign powers. The first sultan who, after a long series of disasters, endeavored to arrest the progress of decline, was Selim III., who introduced the European system into the army, and commenced many internal reforms, which, had he been able to complete them, would have consolidated his power. He failed, and was in consequence forced to give way to an imbecile brother, Mustapha, who, after becoming a fratricide, was himself slain, and succeeded in 1808 by his nephew, Mahmoud II., the only surviving prince of the race of Osman. Occupying the throne without any rival to dispute it, and possessed of talents not unworthy of the earlier princes of his race, he endeavored to carry on the work of reform under rather favorable circumstances, but, as if the disease were too deeply seated to admit of cure, his reign ranks as one of the most unfortunate in Turkish annals. The only important service which he can be said to have rendered was that of annihilating the Janissaries. His successor, Abdul Medjid, who ascended the throne in 1839, in his sixteenth year, has hitherto reigned with success, not so much, however, in consequence of his own talents as from the support which he has received from foreign powers. By their direct interference, the Pasha of Egypt, when on the eve of dismembering the Empire, was driven from his Syrian conquest, and again reduced to vassalage; and now (1855), when a more formidable enemy has appeared in the emperor of Russia, apparently imagining that the period for his long envied possession of Constantinople has arrived, an alliance cemented between Great Britain and France at a time when it was deemed all but impossible, promises, by repelling the aggressor, to prolong the existence of the Empire.

[*Weights, Measures, and Moneys.*—The standards of Constantinople form the official system of the Empire; but there are local exceptions.

Weights.—The occa or oke of 4 chequees or 400 drachms = 1283.0322 grammes or 2.82890 lbs. avoirdupois; and the rottolo = 564.5341 grammes or 1.24471 lbs. avoirdupois; 100 rottoli = 44 occas = 1 cantaro.

Measures.—The archim or halebi (greater pik) = 685.8 millimetres or 27.00049 inches, and the endaze (lesser pik) = 632 millimetres or 24.88234 inches. The berri or mile = 1,826 yards. The alma (wine) = 5.23 litres or 1.38171 gallon and (oil) in weight = 8 occas. The fortin of 4 kislots or killows = 104.13 litres or 3.95522 bushels.

Moneys.—Accounts are stated in chirsk or piasters (grusch, ghersh, or kirk-paralik) of 40 paras, each of 2½ good or 3 current akcheh or aspers; 500 piasters = 1 keser or common silver purre, and 2 kesers = 1 juks; 80,000 piasters = 1 kise or gold purre. Since 1845 the gold coins have been pieces of 50 and 100 piasters, and the silver coins the piaster and its multiples, 2, 5, 10, and 20 piaster pieces. Gold is minted at 916 fine, and the piaster weighs 1.11 grain, valued at $0.43814; and silver is minted at 833 fine, and the piaster weighs 18.5 grains, valued at $0.41511. The coinage previous to the date specified is a confused medley of denominations.

The word "chirsk" or piaster applied as a name to a coin has, in Turkey, no very definite signification. Each successive emperor has outvied his predecessor in depreciating the coinage. A hundred years ago it was worth 60 cents, seventy-five years ago 40 cents, and fifty years ago 25 cents. In 1820 it was worth 18 cents; in 1825 about 12 cents, and then rapidly fell from 12 to 8 cents, from 8 to 6 cents, and from 6 to its present very humble pretensions, somewhat more than 4 cents; and even at this depreciated estimate there is no certainty that the coin is actually of such value. In commerce the common rate is—23 piasters = 1 Spanish dollar.]

KINGDOM OF GREECE.

1. Greece or Hellas is situated between latitudes 36° 23′ and 39° 13′ north, and longitudes 20° 40′ and 26° 30′ east from Greenwich; and is bounded on the north by Albania and Thessaly, on the east by the Ægean Sea, on the south by the Mediterranean Sea, and on the west by the Ionian Sea.

2. Greece, as existing at the present day, is composed of three distinct portions of territory: Livadia or Greece proper, the Morea, and the Islands. Livadia is a long tract of hilly country, extending about 180 miles east and west, with a breadth nowhere exceeding 50 miles, between Thessaly and Albania on the north, and the gulfs of Lepanto and Egina on the south. The Morea (the ancient Peloponnesus) is a large peninsula, 137 miles in length by 135 in its greatest breadth, but of very irregular shape, and connected with Livadia by the Isthmus of Corinth. The Islands lie chiefly on the east and southeast. The largest is Eubœa, only separated from the mainland of Livadia by a narrow channel. The other islands form three principal groups: the North Sporades, to the northeast of Eubœa (Negropont); the West Sporades, chiefly in the Gulf of Egina, or between it and the Gulf of Argo-

lis or Nauplia; and the Cyclades, lying southeast of Livadia. Including the islands, the extent of the country, east and west, is about 320 miles, and the extent, north and south, somewhat less than 200 miles. The land surface is estimated at 19,031 square miles.

3. One of the most striking features of the physical construction of Greece is the vast extent of its coast-line, formed by numerous gulfs, which penetrate into it, and give it a remarkably broken and ragged appearance. On the west coast are presented in succession the gulfs of Arta, Patros (continued inland by that of Lepanto or Corinth), Gastouni, and Arcadia; on the south, those of Messenia or Korou, and Laconia; and on the west, those of Argolis or Nauplia, Egina, Zeitouni, and the channels of Egripos, Talanti, and Trikeri.

4. Another principal feature is the mountainous character of the interior. The range of the Pindus, which in the north is linked to the Dinaric Alps, proceeds south, and on reaching the northern frontier of Greece divides into numerous minor chains, which, with their ramifications, extend over the whole length and breadth of the country, leaving little intermediate space for valleys and plains. The principal branch, stretching east and west along the northern frontier, attains, in Veluchi, near the sources of the Hellada, and in Cheledonia, near Karpenitza, heights varying from 7,000 to 8,000 feet. Farther east, in the chain of Oeta, is Mount Guiona, 8,240 feet, the culminating point of Greece. Another branch, stretching in an east-southeast direction toward Attica, forms the celebrated range of Parnassus, which in Liakhura, its loftiest summit, exceeds 8,000 feet. Other summits continued in the same direction, though more distinguished for their classic associations than their elevation, attain in Cithæron, Parnes, Pentelicus, and Hymettus the respective heights of 4,630, 4,640, 3,640, and 3,370 feet. Another range, to the north of the former and nearly parallel to it, stretches longitudinally through the island of Eubœa, and in the Delphi Mountains, not far from the northeast coast, attaining the height of 5,400 feet; and several other summits of this range exceed 3,000 feet.

5. Quitting northern Greece, a branch from Mount Cithæron proceeds across the Isthmus of Corinth into the Morea, and stretches over it in all directions. Many of the summits exceed 5,000 feet, and Taygetus, west of ancient Sparta, forming part of the range which proceeds south to the extremity of the Morea, attains in its culminating point, Makryno or St. Elias, 7,829 feet.

6. The rock most largely developed in the mountains of Greece is limestone, where it often assumes the form of the finest marble. To the east of Attica, mica-slate occurs in connection with the limestone, and is also seen in the mountains of the Morea. Granite and gneiss are found only in the north, in the east ramifications of the Pindus. Tertiary formations prevail in the northeast of the Morea; and in the northwest, along the shores, are considerable tracts of alluvium. Volcanic rocks are not seen on the mainland, but form large masses in some of the islands—one of which, Santorini (Thera), is, indeed, only a recently extinct volcano. In addition to marble and limestone, already mentioned, the minerals include traces of gold, argentiferous lead, copper, lignite, sulphur, saltpeter, and various economic earths.

7. Owing to the nature of the surface, the rivers are more remarkable for their number than for their importance. The largest is the Aspropotamus (Archelous), which rises in Albania, on the west slope of the Pindus, enters Greece in latitude 39° 9′, flows south-southwest through the west part of Livadia, and falls into the Ionian Sea opposite to the isle of Ithaca. The only others deserving of notice—not so much on their own account, as of the interesting associations connected with them—are the Hellada or Sperchius, the Gavrioz or Bœotian Cephissus, the Cephissus of Attica, the Ilissus, all likewise in Livadia; and the Rouphia or Alpheus, and the Eurotas, in the Morea. The principal lakes are—in Livadia, the Topolais or Copais, Lake Hydra, Lake Ambrakia, Lake Melite, etc., and—in the Morea, the lagoons of Agolinitza, Kaiapha, and Muria, famous for their fisheries.

8. None of the mountains attain the height of perpetual snow, but several of them retain a covering after the summer has far advanced. The climate, however, is generally mild, and in the southern part of the Morea, and in the islands, remarkably equable. In the lower regions, winter can not be considered as lasting beyond two months. Summer is extremely warm, but is tempered by breezes from the sea. At this season rain scarcely ever falls. The rainy season occurs after harvest, and the streams which had been dried up, not only fill their channels, but oftentimes overflow them, and in this way stagnant pools are frequently formed, the miasms arising from which are the sources of pestilence, and even of the plague.

9. Beyond the height of 5,500 feet, vegetation is almost confined to wild Alpine plants. Below this height, magnificent forests clothe the mountains. The full force of vegetation, however, is not displayed above the height of 1,500 feet. The extensive zone reaching thence downward to the sea constitutes the proper agricultural range, and exhibits as great a variety of trees, shrubs, and plants as any portion of the world of the same dimensions. Here are found the fig, grape, olive, currant, orange, lemon, and all the rich fruits of the latitude. Arable land is necessarily of limited extent, and much of the soil is thin and by no means fertile, and hence the grain raised is scarcely equal to the consumption. Domestic animals are neither numerous nor of the best breeds.

10. The population, which in 1855 numbered 1,043,153 souls, contains a considerable mixture of foreign stock, among which the Albanians are the most numerous; but the great majority, though not without some taint in their blood, are of genuine Greek extraction, and both in physical and mental features bear a marked resemblance to their celebrated forefathers. It is true that the degrading bondage to which they were subjected for centuries has sunk them far below their natural level, and too often rendered occult the intellectual superiority which in earlier and better times displayed itself in immortal productions of the chisel and the pen; but that the original elements of greatness still exist has been proved by the noble struggle which they made for independence, and the readiness with which they have availed themselves of their altered circumstances to form schemes and execute measures of improvement.

11. The national dress of the Greeks resembles the Albanian costume. In the males it consists of a tight jacket (generally scarlet), wide trowsers descending as far as the knee, and embroidered gaiters; and in the females it consists of a vest fitting close to the shape, and a gown flowing loosely behind. Their language, named Romaic, though somewhat encumbered with barbarisms and deprived of several of its peculiar graces, makes a nearer approach than any other living tongue to its dead original, and is still sonorous, flexible, and rich; and though no genius has yet arisen to test its powers, it is obviously capable of conveying the loftiest conceptions in the most attractive form.

12. The Kingdom is divided into ten nomes or nomarchies, and these again in forty-nine eparchies or dioceses:

Nomes.	Area, sq. m.	Popula. (1855).	Capitals.	Popula.
Attica and Bœotia	9,822	95,220	Athens	31,125
Eubœa or Negropont		67,847	Chalcis	14,000
Phthiotida and Phocida		87,676	Lamia	10,000
Acarnania and Etolia		101,578	Missolonghi	4,000
Argolida and Corinth	8,954	109,477	Nauplia	16,000
Achaia and Elida		125,967	Patras	9,000
Arcadia		126,860	Tripolizza	4,000
Messenia		100,757	Calamata	3,000
Laconia		88,425	Sparta	6,000
Cyclades (Islands)	1,255	139,337	Hermapolis	2,000

13. Greece is an agricultural and pastoral country, and agriculture employs the greater part of the inhabitants. Besides grain, the principal products are currants, wine, olive oil, silk, and a variety of fruit. The grain crops consist principally of wheat, barley, and maize. The system of agriculture is very antiquated, and the plow described by Hesiod 3,000 years ago is that yet used by the husbandman. Still, improvement and progress are noted. In 1821 only 74,420, but in 1855, 109,320 farms (containing 2,358,000 and 3,650,800 stremma) were under cultivation, and the quantity of grain produced in the years respectively was 5,100,000 and 9,150,000 kiloz.

14. Manufactures are extremely limited, and are chiefly confined to clothing and articles of domestic use. In some of the larger towns there are manufactures of wool, cotton, and silk, and to these may be added embroideries in gold, silver, silk, etc., and earthenware, leather, harness, cutlery, and fire-arms. But unquestionably the most important branch is ship-building, which is carried on to a considerable extent on various points of the coast and islands.

15. Much of the trade carried on is merely coasting; but the foreign trade also is large, having advanced with wonderful rapidity since the independence of the country was re-established. The latter consists of three principal branches—the corn trade of the Black Sea and Alexandria, carried on extensively wherever open markets can be found, but chiefly with Turkey, Italy, Spain, France, and England; the export trade of the countries bordering the Levant, principally to London, Trieste, and Marseilles; and the import of the cotton and woolen manufactures of England and Germany into Greece, Turkey, and Persia. The principal exports of Greece are valonia, oil, emery stone, silk, dried figs, currants, raisins, honey, wax, madder, etc., and the imports are manufactured fabrics of cotton, wool and silk, indigo and other dyes, iron and other metals, hardware, earthenware, corn, etc. The total value of exports in 1854 was 13,851,202 drachmai, and that of imports 25,807,690 drachmai. The merchant shipping, which in 1850 numbered 3,989 vessels (146,372 tons), had increased in 1855 to 5,052 vessels and 295,000 tons.

16. Greece is a hereditary monarchy, established in the line of Otho of Bavaria. By the constitution of 1844, the executive power belongs solely to the king: the legislative jointly to the king, a senate, and a representative chamber. Justice is administered on the basis of the French civil code, by a supreme court (areios-pagos), which has its seat at Athens; two royal courts (ephiteion), one at Athens and another at Nauplia; ten courts of primary resort (protodikeion), one in each principal town, and three commercial courts (emporodikeion), one each at Syra, Patras, and Nauplia. The chief authorities in the nomes are styled nomarchs or prefects.

17. The revenue, derived chiefly from direct and indirect imposts, rents of national property, etc., amounted in 1856 to 22,920,277 drachmai, and the expenditures to 22,542,883 drachmai. The public debt amounted in the same year to about 112,500,000 drachmai, viz.: the foreign debt, 66,600,000 drachmai; the debt to Bavaria, 1,529,333 florins; and the interior debt, 9,850,000 drachmai, etc.

18. The army consists of 433 officers and 9,253 men, of which number (9,686) 7,698 constitutes the regular troops, and 1,978 the gendarmerie and frontier guards. The royal navy comprises 26 vessels, carrying 149 guns, namely: 2 corvettes, 1 steamer, 3 brigs, 8 galleys (of which 4 are steamers), and 12 smaller vessels.

19. The national religion is the Orthodox (non-united) Greek, the government of which is vested in the Holy Synod. The hierarchy consists of a metropolitan, 10 archbishops, and 13 bishops. The Roman Catholics in Greece have two archbishops and four bishops. The private exercise of all other religions is permitted.

20. Public schools are general throughout the Kingdom, and their expenses are partly paid by the state. Gymnasia are established in each chief town, and at Athens the National University. The total number of schools in 1855 was 860, with 122 professors, 989 teachers, and 58,674 scholars.



ACROPOLIS, ATHENS.

21. Athens, the capital, and one of the most celebrated cities of the world, is situated about five miles northeast of the Gulf of Ægina. Latitude 37° 58′ north, and longitude 23° 46′ east. The principal public buildings are the Royal Palace, the Mint, the Hospital, and the Barracks. The antiquities of the city, however, constitute its great attraction. The ancient Acropolis or citadel is still in good preservation, and the remains of numerous temples are strewn over a large extent of ground, both within and without the walls. Port Leone (ancient Piræus), five miles below the city, consists of a land-locked basin, deep to the water's edge. This is the port of Athens, with which communication is

made over an excellent road. Nauplia, on the east side of the gulf of the same name, was the capital previous to 1834. It is a well-built city, fortified, and has a fine harbor. Nearly all the trade of the Morea centers here.

22. Corinth, on the isthmus of the same name, has long been an entrepôt for the commerce of Greece. The citadel, called Acrocorynthos, on a hill 1,800 feet high, is one of the strongest fortresses of the Kingdom. In 1858 the city was greatly injured by an earthquake. Patras is a considerable town on the northwest coast of Achaia. Navarino, on the southwest coast of Messenia, is a fortified town near the southern entrance of the noble basin formed by the island of Sphaji. Sparta, so renowned in history, is situate on a plain near the right bank of the Basilipotamo. Besides these, there are numerous other noted places, and many of the islands contain cities of considerable pretensions. Ruins of cities are seen in every direction.

23. The original inhabitants of Greece consisted of various tribes, now generally classed under the common name of Pelasgi. These were supplanted by the Hellenes, apparently a people from the East, who first arrived in the country about B. C. 1384. Little is known relative to this race to the time of the Trojan war, in B. C. 1184—the whole previous period being designated the Heroic Age, and the most authentic records relating to it must be sought in the poems of Homer.

24. Some centuries later, Greece, excepting Sparta, is found divided into a number of independent republics. The mutual jealousies of these states led to the Persian war, and the leaguing of the whole against the foreign enemy. The first great battle, fought at Marathon, B. C. 490, was the commencement of a series of glorious victories, which issued in the complete defeat of the Persians. During the two following centuries all the great writers, orators, sculptors, and architects of Greece appeared; and it was not only able to repel attacks on its own independence, but to assume the offensive. But, as usual, prosperity proved more trying than adversity had been; wealth introduced luxury, and the process of degeneracy begun. Ancient jealousies were revived, and state armed against state, each in its turn invoking foreign aid.

25. While the Greeks were thus wasting their energies, Philip of Macedon was calmly devising plans for their subjugation, and had not death overtaken him, must shortly have made himself as absolute master of the destinies of Greece as his son Alexander afterward became. The power of the Macedonian sovereigns continued permanent in Greece till the Roman Conquest, B. C. 146; and the early independent spirit of the nation appeared now to be completely broken. Centuries of degradation rolled over the nation. The crowning disaster commenced A. D. 1438, when the Turks first obtained a footing. A long series of exterminating wars ensued, during which the Venetians and Turks contended for the mastery. The latter ultimately prevailed, and in 1718 the highest honor which Greece could claim was that of being a Turkish province.

26. Nearly a century of the grossest misrule followed. In 1821, however, when degradation seemed to have reached its lowest possible limit, a strong reaction commenced, a new spirit began to appear, and the Greeks, as if throwing off their lethargy, declared their determination to be free. A protracted struggle ensued, but the issue was still doubtful, when the great European powers interfered, and compelled the Turks in 1829 to acknowledge Greece as an independent state, and shortly afterward it was erected into a constitutional monarchy.

[*Weights, Measures, and Moneys.*—The French metrical system contains the official standards of the Kingdom, and is now used in the higher grades of commerce. The Turkish denominations still retained for the ordinary purposes of trade are:

WEIGHTS.—The okka of 400 drachmai = 1278.48 grammes or 2.81886 lbs. avoirdupois; 44 okkas = 2 kilos = 1 cantaro. The libra = 477 grammes or 1.05171 lb. avoirdupois; 1,000 = 1 millar or migliajo.

MEASURES.—Two "piks"—the larger = 685.8 millimetres or 27.00049 inches, and the lesser (or silk) = 635 millimetres or 25.00045 inches. The stremma = 4 paces square or 1.196 square yards; and the acre or arpent = 50.5739 ares or 1.25 acre. The kiloz or quillot = 33.1482 litres or 0.94071 bushel. The staro of 8 bachel = 82.1 litres or 2.32992 bushels.

MONEYS.—Accounts are stated in drachmai of 100 lepta or centimes; 6 drachmai = 1 Spanish dollar.

The coins are—*gold:* 20 and 40 drachmai, minted 900 fine, the first weighing 5.7766 grammes or 89.14678 grains Troy, and in value $3.45529; and—*silver:* the drachmai and its multiples and subdivisions, minted 900 fine, and weighing 4.4777 grammes or 69.09802 grains Troy = $0.16751. Copper is coined into lepta and pieces of 2, 3, 5, and 10 lepta or centimes.]

IONIAN ISLANDS.

1. THE IONIAN ISLANDS lie between the latitudes 35° 48′ and 39° 55′ north, and the longitudes 18° 35′ and 23° 18′ east from Greenwich; and are situate off the coast of Albania and the west and south shores of Greece. Together with their dependencies, their land area is stated at 1,102 square miles.

2. The islands, each of which, in connection with its dependencies, forms a separate government, are as follows:

Islands.	Area, sq. m.	Population. 1851.	Population. 1856.	Chief Towns.	Popula. 1856.
Corfu	227	64,676	67,930	Corfu	15,921
Paxo	26	5,017	4,742	Paxo	404
Santa Maura	180	18,676	20,327	Santa Maura	4,579
Ithaca	44	10,821	11,480	Ithaca	4,369
Cephalonia	348	69,984	71,936	Argostoli	9,271
Zanté	161	38,929	37,153	Zanté	14,026
Cerigo	116	11,694	13,256	Cerigo	1,393
Total	1,102	219,797	216,824		49,963

—to the population, as above given, must be added 9,500 for foreign residents, and 3,000 for the English garrison troops, which will make the total population, in 1851, 232,297, and, in 1856, 229,324. These figures show a loss of 2,973 souls in the five years.

3. The Ionian Islands belong to the same great calcareous formation which prevails over Greece. They are extremely mountainous, and contain comparatively but a small portion of arable land. The climate generally assimilates that of the adjoining mainland, except that the sea renders it more uniformly temperate and humid. The Ionians themselves partake in some general features of the Greek configuration, and are essentially of the same race.

4. Agriculture is the great occupation of the people, but its operations are pursued in a very rude method, and only about the half extent of the islands is under culture. The vine, currant, and olive are the principal objects of culture. Of grain, comparatively a small quantity is produced. Livestock is abundant, especially sheep and goats. Currants are grown only in Cephalonia, Zanté, Santa Maura, and Ithaca, but chiefly in the first two islands. Salt is produced in Zanté and Santa Maura. In the islands of Corfu and Zanté large quantities of soap are manufactured, and also much earthenware. The other manufactures of the islands consist of silk shawls, linens, woolens, and goat-hair carpets, and sacking. The staple exports are oil, currants, valonia, wine, soap, and salt; and the imports, manufactured goods, grain, etc. The trade is carried on principally in British shipping. In 1856 the value of exports was £571,910, and that of imports £849,210; and of shipping, 504,696 tons entered, and 500,728 tons cleared, chiefly Austrian, Ionian, British, and Greek.

5. The government, which has its seat at Corfu, consists of a Lord High Commissioner, the representative of Great Britain; a senate or executive composed of a president and five members, and a parliament or legislative assembly of 40 members, 29 of whom are elected for five years from the various islands, and 11 appointed by the Lord High Commissioner. The parliament meets annually. The land force consists of about 3,000 British troops, and four regiments of native militia; and the navy of a British frigate and steamer, and two steamers under the Ionian flag. The established religion is that of the eastern Greek Church, to which four fifths of the people belong. Each island is governed by a regent and elected council; and each has its own bishop, but at the head of the whole is an exarch (proto-papa) or primate—all of whom are consecrated by the Patriarch of Constantinople. The public revenue in 1856 amounted to £381,439, and the expenditures to £357,626. The public debt in the same year amounted to £300,000, of which sum one third was in paper money.

6. At Corfu is a university, and also a seminary for priests of the Greek Church. In each of the islands there is a secondary school maintained at the public expense, in which ancient Greek and Latin, and the modern Greek, English, and Italian languages, arithmetic, and elementary mathematics are taught. In the chief town of each island is a central school supported at the public expense, for reading, writing, and arithmetic, and for training the village schoolmasters, and there are besides these numerous district schools. The whole is under an inspector-general, subject to a commission for public instruction.

7. Corfu, the seat of government, is situated on the east side of the island of the same name, in latitude 39° 37′ north, and longitude 19° 55′ east. It is a fortified town, with narrow and irregular streets, and contains a cathedral, several Greek and Catholic churches, the university, etc. The harbor is safe and commodious; and Corfu is the principal seat of the foreign trade of the islands. Cayo is the only important town, and the most frequented harbor in Paxo. Amaxichi, the chief town of Santa Maura, has some manufactures of cotton and leather, and a considerable trade. Vathi, in Ithaca, is a small town with a good harbor. Argostoli, in Cephalonia, is located on a peninsula on the east shore of the gulf to which it gives name. The city is meanly built, but the harbor is considered the best in the Ionian Islands, and has several dock-yards. The inner haven or port affords excellent shelter. Cotton goods and pottery are manufactured, and it has an active commerce. Lixuri, on the opposite side of the gulf, is another considerable town. Zanté, on the eastern side of the island of the same name, is a large town with an imposing appearance, and has been termed "fiore di Levante"—the flower of the Levant. It is the seat of a considerable commerce. Kapsali is a sea-port on the south shore of Cerigo, and has a commodious harbor. Many of these towns have at various times suffered from earthquakes, which are frequent.

8. The Ionian Islands, so called from lying in that part of the Mediterranean anciently known as the Mare Ionicum or Ionian Sea, often figure in the history of ancient Greece, but only singly, not collectively. They belonged successively to Corinth, Greece, Epirus, and Rome. On the fall of the Eastern empire they passed into the hands of the Venetians. In 1797 the French became masters, and labored with assiduity in spreading their democratic principles. In 1800, Russia and Turkey having by their combined forces expelled the French, while retaining a protectorate, left the inhabitants to make an attempt at self-government. Anarchy and confusion were the result; and in 1805 Russia, by a secret article in the treaty of Tilsit, ceded the islands to France. In 1809–10 all the islands were overrun by the British troops, except Corfu, which also surrendered in 1814; and the possession of the British was finally fixed and regulated by the treaty of Paris in 1815.

[*Weights, Measures, and Moneys.*—The British imperial system has been in use since 1828.

WEIGHTS.—The "libra sottile of 12 onci, each of 20 calci or 480 grani = 1 lb. Troy, and the "libra grosso" of 16 onci = 1 lb. avoirdupois. Venetian weights were formerly in use.

MEASURES.—British, and also the braccio (woolen) = 690.5 millimetres or 27.18554 inches, and (silk) = 644.5 millimetres or 22.36854 inches, and the pik = 573 millimetres or 22.55946 inches. The carnaco = 5½ yards or 1 pole; 40 carnacos = 1 stadio or furlong. The moggio of 8 misures or 24 zappade = 2 acres 1 rood and 24 perches. In Corfu, Cerigo, Ithaca, and Paxo, 1 wine barila of 4 giarre or 128 quartucci = 68.13 litres or 17.99 gallons, in Zanté = 69.5520 litres or 18.37 gallons, in Cephalonia = 50.8199 litres or 13.43 gallons. The new Ionian barila of 128 succali or pints = 19.20512 gallons. The moggio (corn measure) varies in each of the islands; the new corn measure is the kilo = 1 imperial or 1.031516 United States bushel.

MONEYS.—Accounts are stated in talari or dollars of 100 oboli, also in £, *s.*, and *d.*, and in some places in Turkish piasters of 40 paras. The Spanish dollar is reckoned at 104 oboli. Ionians coins are silver pieces of 3 oboli, and copper pieces of ½ and 1-10th obolus. The circulation consists chiefly of British, Spanish, and Austrian coins. Exchanges are reckoned in Spanish dollars.]

DESCRIPTIVE GEOGRAPHY OF ASIA.



INDIAN PROCESSION.

1. Asia, the largest of the grand divisions of the land, is situated between the latitudes 1° 15′ and 78° 20′ north, and the longitudes 27° 18′ east and 170° 10′ west of Greenwich; and is bounded on the north by the Arctic Ocean, on the east by the Pacific Ocean (which divides it from America), on the south by the Pacific and Indian oceans, on the southwest by Africa (from which it is separated by the Arabian Gulf and Red Sea and the Isthmus of Suez), and on the west by the Dardanelles, the Black Sea, the range of the Caucasus, the Caspian Sea, and the Ural River and Mountains dividing Asia from Europe.

2. The greatest extension of Asia is about 7,500 miles, the distance between the Dardanelles and Behring's Strait, and the greatest meridional extension is 5,160 miles, the distance between Cape Sievero Vostochnia in Siberia to Point Romania at the southern extremity of the Malay peninsula. The area is computed at 16,500,000 square miles.

3. Asia is joined to Europe throughout the whole length of its western border, being separated from it by an arbitrary line only, part of which is formed by the Ural Mountains, and is connected with Africa by the Isthmus of Suez. On the east it is separated from America by Behring's Straits, where the two continents approach within a few miles of each other. The coasts of Asia are singularly irregular, being indented all round by immense bays and gulfs, forming projections of corresponding magnitude. The principal of the former are the Persian Gulf, Arabian Sea, Bay of Tonquin, Yellow Sea, Bay of Bengal, and Gulf of Siam on the south coast, and the Sea of Japan, Gulf of Tartary, Sea of Okhotsk, and Gulf of Anadir on the east coast. On the north the indentations are equally numerous, but, with the exception of the Gulf of Obi, not of the same extent. The more remarkable peninsulas are those of Arabia on the west; Hindoostan, Malacca and Cochin China on the south, and Corea and Anadir on the east coasts.

4. The principal islands and island groups included within the limits of Asia are—on the south and east, the Laccadives, the Maldives, the Chagos Archipelago, Ceylon, Hainan, Formosa, Chusan, Hong-Kong, the Japanese islands, Sagalin, and the Kuriles. On the north are the islands of Kotelnoi, Fadievsk, New Siberia, Liokoy, and, according to Humboldt, Nova Zembla.

5. The vast extent of Asia, the diversity of its surface, and the conflicting accounts given of the physical structure of large portions of its interior, renders description difficult and accuracy impossible. It may, however, be characterized generally, and notwithstanding its enormous elevations, as a flat country, its mean level above the sea not exceeding 1,150 feet, while a third part has not more than 225 feet mean height. The whole of that portion lying northwest of the Thian-Shan Mountains or at latitude 45° north, and north of the Altai or of latitude 50° north, is one prodigious plain or tract of low land, a third larger than Europe, and the elevation of which is only from 200 to 1,200 feet. The south portion, again, which stretches along the Indian Ocean, is composed likewise of comparatively level regions; so is also a great part of the interior, where the elevations do not exceed from 2,000 to 4,000 feet above sea-level. Still, while a large portion of the surface is comparatively little above the sea, many extensive tracts have great elevation; and, again, no small part of the continent is below the level of the ocean. The extensive country north and east of the Caspian Sea, and around the Lake of Aral, forms a vast cavity of about 55,000 square miles, all of which is below the level.

6. The prodigious mountain systems of Asia are no less remarkable than its plains and deserts. With exception of the Ural Mountains, none of any note occur throughout the whole of Asia north of the 50th parallel or west of the 120th meridian east; but east of that meridian the Aldan Mountains and the Yablonoi and Stanovoi-Krebit attain considerable elevation. South of 50° and north of 31° are to be found the principal mountain systems, consisting of four great ranges, tolerably parallel to each other and to the equator—the largest extending, in an almost unbroken line, under the various names of Taurus, Elbruz, Hindoo-Koosh, and Kuen-lun, from the Bosphorus to China, east of the 100th meridian, forming, in a sense, the backbone of the continent. The subsidiary systems lie at various angles to the equator, but, generally speaking, they run parallel to the coasts—the greater number, however, having a direction southeast to northwest, as in Arabia, Persia, the coast of Malabar, the peninsula of Burmah and Anam, and Malacca; while on the coast of Coromandel, in north India, China, Manchooria, and Siberia, the general direction is southwest to northeast.

7. The great mountain systems of central Asia are the Himalayas, the Altai, the Thian-Shan or Celestial Mountains, and the Kuen-lun, all, generally speaking, parallel to the equator.

8. The Himalaya range, the general course of which is from northwest to southeast, consists of three parts, the Hindoo-Koosh or Indian Caucasus, which extends from the Paropamisan range, in Afghanistan, to Cashmere; the Himalaya or Imaus of the ancients, which



MOUNTAIN SCENERY IN ASIA.

stretches from the valley of Cashmere to Bhotan, with a semicircular inflection; and lastly, the mountains of Bhotan and Assam. The entire length of the range of the Himalayas is about 1,800 miles, reckoning from the west extremity of the Hindoo-Koosh, near the river Dehas, in Cabool, to the Brahmapootra, in Assam. The mean height of these stupendous mountains has been estimated at from 16,000 to 20,000 feet. The highest summit yet ascertained with any degree of certainty is that of Gahoorishanka or Mt. Everest, in the eastern part of Nepaul, which is 29,002 feet in height. Kunchinjinga, in Sikim, ranks next to it; but there are several other peaks said to be of equal, and some of even still greater elevation.

ASIA

(PHYSICAL.)

EXPLANATION.

Mountain Chains are represented thus —— *(the broader the line the greater the elevation.) The highest points are marked with circles thus* —○— *and the elevation given in feet. Volcanoes thus* —◎— *Table lands and Plateaus colored Brown. Plains and Low lands are colored Green. The names of the chief products of each country are inserted thus Silk. Tea. The localities where minerals are found are marked thus* Gold, Silver.

TEMPERATURE & CURRENTS

The mean temperature of January and July, is shown by Isothermal lines crossing the map thus January 51° *July* 81° 5′. *The direction of Ocean Currents is shown by Arrows and the figures attached show the velocity of water for each period of 24 hours in nautical miles.*

PROFILE OF ASIA BETWEEN LAT. 36 & 46 NORTH EXTENDING FROM THE BLACK SEA TO THE PACIFIC OCEAN.

PROFILE OF ASIA ON LAT 28° NORTH FROM THE GULF OF SUEZ TO THE PACIFIC OCEAN.

The light shaded Elevations represent remarkable Ranges or Peaks further North.

Entered according to Act of Congress, in the Year 1858 by J. H. Colton & Co. in the Clerks Office of the District Court of the United States, for the Southern District of New York.

ASIA

SCALE OF STATUTE MILES
0 100 200 400 600 800

600 Geographical or 691.59 Statute Miles to one inch.

ARCTIC OCEAN
NORTH AMERICA
EUROPE
RUSSIAN EMPIRE
EASTERN SIBERIA
WESTERN SIBERIA
KAMTCHATKA
OKHOTSK SEA
BERING SEA
TURKEY
ARABIA
PERSIA
AFGHANISTAN
BELOOCHISTAN
TOORKISTAN
KHIVA
BOKHARA
KOKAND
CHINESE EMPIRE
INNER MONGOLIA
OUTER MONGOLIA
TIBET
HINDOOSTAN
JAPAN
JAPAN SEA
YELLOW SEA
CHINA SEA
PHILIPPINE ISLANDS
BORNEO
SUMATRA
JAVA
CELEBES SEA
MOLUCCA ISLANDS
PACIFIC OCEAN
INDIAN OCEAN
AUSTRALIA
ARABIAN SEA
BAY OF BENGAL
RED SEA
MEDITERRANEAN SEA
BLACK SEA
CASPIAN SEA
ARAL SEA
LAKE BAIKAL
LAKE BALKASH
LAKE ZAISAN
LAKE KOKONOR
DESERT OF GOBI OR SHAMO
SANDY DESERT
GREAT DESERT
EQUATOR
TROPIC OF CAPRICORN
ARCTIC CIRCLE

North East Cape
North Cape
C. Comorin
Cape Guardafui
Cape Aden
Cape Negrais
Achreen Head
Java Head
Point de Galle
Dondra Head
Cape Cambodia
C. Lisburne
East Cape
C. Navarin
C. Lopatka
C. Engano
C. Avarella

MOSCOW
ST. PETERSBURG
Riga
Odessa
Sebastopol
Constantinople
Smyrna
Damascus
Jerusalem
Mecca
Medina
Muscat
Aden
Bombay
Madras
Calcutta
Delhi
Lahore
Agra
Benares
Patna
Lucknow
Hyderabad
Goa
Cochin
Colombo
Pondicherry
Seringapatam
Nagpoor
Baroda
Ahmedabad
Surat
Moorshedabad
Ava
Pegu
Bangkok
Saigon
Singapore
Batavia
Palembang
Banjermassin
Macassar
Djokjokarta
Soerabaya
Amoy
Canton
Foochow
Shanghai
Ningpo
Kinkiang
Hankow
Pekin
Kiachta
Irkutsk
Yakutsk
Okhotsk
Petropavlovsk
Nertchinsk
Yeniseisk
Krasnoiarsk
Tomsk
Omsk
Tobolsk
Semipalatinsk
Barnaul
Kolyvan
Kosigurt
Yarkand
Khoten
Kirrea
Aksu
Ili or Kuldsha
Hami
Barkol
Kamul
Oksoo
Turfan
Kashgar
Samarkand
Bokhara
Khiva
Merv
Meshed
Herat
Cabool
Candahar
Kelat
Ispahan
Shiraz
Yezd
Teheran
Tabreez
Erzeroum
Tiflis
Astrakhan
Orenburg
Kasan
Nishnii Taghilsk
Ekatrinburg
Toolsa
Kief
Charkof
Saratof
Nicolaief
Odessa
Vienna
Constantinople
Smyrna
Aleppo
Bagdad
Bassorah
Mocha
Sana
Loheia
Jubbal
Hail
Medina
Yanbo
Mecca
Jeddah
Konfodah
Ajisan
Beila
Kedje
Bunpoor
Kunjuvah
Delhi
Agra
Lucknow
Benares
Patna
Moorshedabad
Calcutta
Dacca
Chittagong
Akyab
Ava
Pegu
Martaban
Amherst
Tavoy
Mergui
Tenasserim
Junkseylon
Penang
Acheen
Pedro Blanco
Maldive Islands
Laccadive Is.
Nicobar Islands
Andaman Islands
Ceylon
Kandy
Trincomalee
Jaffna
Manaar
Negrais
Bassein
Rangoon
Martaban
Tavoy
Mergui
Junkseylon
Penang
Malacca
Singapore
Pahang
Borneo
Sarawak
Kaimanis
Labuan
Balambangan
Sooloo
Mindanao
Manilla
Luconia
Samar
Leyte
Celebes
Timor
Flores
Sumbawa
Lombock
Bali
Java
Sumatra
Engano
Mauritius
Bencoolen
Poggy Is.
Nias I.
Manitawai Is.
Pulo Condore
Hue
Cochin China
Siam
Laos
Yunnan
Kweichau
Kwangsi
Kwangtung
Fokien
Chekiang
Kiangsu
Nganking
Honan
Shensi
Kansuh
Shansi
Chihli
Liaotung
Corea
Saghalien
Amoor R.
Lena R.
Yenisei R.
Obi R.
Irtish R.
Ishim R.
Tobol R.
Ural R.
Volga R.
Don R.
Dniester R.
Danube R.
Dwina R.
Petchora R.
Ob R.
Yenisei R.
Lena R.
Indigirka R.
Kolyma R.
Anadir R.
Amoor R.
Hoang or Yellow R.
Yang tse kiang River
Si kiang R.
Mekong R.
Irawaddy R.
Ganges R.
Indus R.
Euphrates R.
Tigris R.
Jordan R.
Nile R.
Red Sea
Persian Gulf
Gulf of Aden
Gulf of Siam
Gulf of Tonquin
Gulf of Martaban
Gulf of Cambay
Gulf of Manaar
Gulf of Mantua
Gulf of Ormus
Gulf of Suez
Gulf of Akabah
Sea of Marmora
Sea of Azof
Aral Sea
Caspian Sea
Lake Baikal
Lake Balkash
Lake Zaisan
Lake Kokonor
Lake Aralkum
Lake Urmiah
Lake Van
Lake Tiberias
Dead Sea
Lake Menzaleh
Lake Ladoga
Lake Onega
Lake Peipus
Lake Wener
Lake Wetter
Lake Maeler
Lake Hielmar
Lake Saima
Lake Enara
Lake Kubenskoe
Lake Ilmen
Lake Peipus
Lake Ladoga
Lake Onega
Lake Wener
Lake Wetter
Lake Maeler
Lake Hielmar
Lake Saima
Lake Enara
Lake Kubenskoe
Lake Ilmen

PALESTINE
Showing the Jewish & Roman Divisions.

Beirut, Baalbeck, Damascus, Sidon, Hasbeiya, Mediterranean Sea, Mt. Hermon, Dan or Cæsarea Philippi, Tyre, Acre, GALILEE, Bethsaida, Kenath, Capernaum, Edrei, Nazareth, Cesarea, Bozrah, Shechem, Jabesh Gilead, Samaria, Dothan, Mahanaim, SAMARIA, Shiloh, Mt. Gilead, Joppa, Ephraim, Ramoth Gilead, Lydda, Jericho, Rabbath Ammon, Emmaus, Bethany, Pisgah, Mt. Nebo, JERUSALEM, Gath, Bethlehem, Hebron, JUDEA, Rabbath Moab, Gaza, SIMEON, MOAB, Beersheba, Zoar, Dead Sea, El Ghor, Land of the Philistines, Wilderness of Judea, Wilderness of Paran, Wilderness of Zin, Wilderness of Sin, Wilderness of Shur, Wilderness of Kadesh, Wilderness of Jeshimon, Wilderness of Ziph, Wilderness of Maon, Wilderness of Engedi, Wilderness of Judea, Wilderness of Beersheba, Wilderness of Zoar, Wilderness of Moab, Wilderness of Gilead, Wilderness of Bashan, Wilderness of Hauran, Wilderness of Damascus, Wilderness of Palmyra, Wilderness of Euphrates, Wilderness of Tigris, Wilderness of Arabia, Wilderness of Egypt, Wilderness of Sinai, Wilderness of Paran, Wilderness of Zin, Wilderness of Sin, Wilderness of Shur, Wilderness of Kadesh, Wilderness of Jeshimon, Wilderness of Ziph, Wilderness of Maon, Wilderness of Engedi, Wilderness of Judea, Wilderness of Beersheba, Wilderness of Zoar, Wilderness of Moab, Wilderness of Gilead, Wilderness of Bashan, Wilderness of Hauran, Wilderness of Damascus, Wilderness of Palmyra, Wilderness of Euphrates, Wilderness of Tigris, Wilderness of Arabia, Wilderness of Egypt, Wilderness of Sinai

To obtain a correct idea of the size of Palestine compare this map with those of the States & the British Isles.

SCALE OF STATUTE MILES. 0 10 20 30 40

50 Geographical or 57.63 Statute Miles to 1 in.

LONGITUDE FROM GREENWICH
LONGITUDE EAST FROM WASHINGTON

Entered according to Act of Congress in the Year 1858, by J.H. Colton & Co. in the Clerks Office of the District Court of the United States for the Southern District of New York

The number that exceed 21,000 feet is upward of forty. Most of the passes are above 15,000 feet in height, and some of them 18,000 and 19,000. The line of perpetual congelation is at an elevation, on the south side, of 12,981 feet, on the north of 16,620. The crest of the Himalayas is of stratified crystalline rocks, especially gneiss, with large granitic veins and immense beds of quartz. The zone, between 15,000 and 18,000 feet above the level of the sea, is of silurian strata; granite is frequent at the base, and strata of comparatively modern date occur at great elevations. Vegetation is prolonged on the Himalayas to the height of upward of 18,000 feet. These magnificent mountains are intersected by valleys and ravines of tremendous depth, through many of which rivers and torrents rush with inconceivable impetuosity.

9. The system of the Altai surrounds the sources of the Irtish and Yenisei. The Altai proper forms little more than a fourth part of the entire system, extending from west to east from the confluence of the Uba and Irtish to Mount Gurbi, and the south of Lake Baikal. Its branches or continuations stretch, under various names, first to the Gulf of Okhotsk and afterward to Eastern Cape, where it terminates; the whole length being about 4,500 miles, the breadth varying from 400 to 1,000 miles. The most prominent masses of this system, attaining the limits of perpetual snow, are situated between the parallels of 49° 30′ and 51° north. On the highest known summit, Bielukha, in the Russian Altai, which attains an elevation of 11,000 feet above the sea, a glacier one and a half miles in length occurs.

10. The Thian-Shan or Celestial Mountains run nearly along the 42d parallel of north latitude, rising in Tartary and terminating in the desert of Gobi, in Mongolia. Their highest summit, Bogda Oola, or "Holy Mountain," is always covered with snow. Indeed, snow lies deep on the whole range in winter. Little is known of the country between the Thian-Shan Mountains and those of the Altai—a space of about 400 miles in breadth.

11. The Kuen-lun Mountains run nearly parallel with the former range, and in some parts with the Hindoo-Koosh also. They rise a little to the east of the 100th degree of east longitude, and, under the various names of Kulkan, Aneuta, Kuen-lun, Hindoo-Koosh, Elbruz, and Taurus, running west and northwest, closely skirt the Caspian Sea and Black Sea on the south, terminating to the west of the latter, thus forming, with the exception of the American Cordillera of the Andes, the longest line of elevation on the surface of the globe.

12. In the mountain systems of the northeast of Asia, beyond the Altai, the ridges (from southwest to northeast) are of little extent and elevation when compared to the four great chains above described, running from east to west, and which constitute, as it were, the framework of central Asia. The other principal mountain systems are the Ural and Caucasian Mountains, both in western Asia, the former running north and south, and the latter northwest and southeast; the Taurus and Anti-Taurus, in Anatolia, the former southeast to northwest, and the latter northeast to southwest; the Persian mountains and the western Ghauts in the Carnatic, both running southeast to northwest; the Vindhaya range, in Upper India, and the Assam chain, southwest to northeast. The numerous other chains, of greater or less extent, existing over this great continent, will be found noticed in the special geography of the countries in which they occur.

13. Asia has few volcanoes in a state of activity, though its islands are crowded with them, Java containing a greater number than any other spot on the surface of the globe. In western Asia the only active volcano existing is Demavend, 70 miles south from the south shores of the Caspian Sea. It is 14,695 feet in height, is covered with snow, and is constantly smoking. The table-land of western Asia was at one time the seat of intense commotion, now restricted to the mountain just named, to Seiban-dagh, and Ararat. In the table-land of eastern Asia, the only instance of igneous explosion that occurs is in the volcanic chain of the Thian-Shan, where are two active volcanoes at the distance of 670 miles from each other, Peshan and Hocheou. These are the center of an extensive volcanic district, extending north to the Altai Mountains. Fire-hills and fire-springs are numerous in China, but, so far as is known, there are no mountains that eject lava. In Kamtchatka, however, there are no fewer than nine volcanoes in a state of activity. Earthquakes are frequent and violent. The places most subject to these visitations are Asia Minor, the Persian mountains, Cabool, the regions between Lake Baikal and the volcano of Hocheou, in the southeast of Tartary, and in the province of Cutch, in Hindoostan.



MOUNT ARARAT.

14. The table-lands of Asia, like all its other physical features, are upon the most gigantic scale. That of Iran, in Persia, occupies an area of 1,700,000 square miles, and is generally from 4,000 to 7,000 feet above the level of the sea, while that of Tibet comprises 1,600,000 square miles, at a mean altitude of 11,600 feet. The table-lands of the interior are frequently fertile, and enjoy genial climates, but in some instances, as in that of the table-land of Tibet, are cold and sterile, snow falling there every month in the year. Among the less extensive table-lands are those of Taxila in the Punjab, of Malwah or central India, of the Deccan, and of Mysore.

15. Nearly the whole of northwestern Asia is one vast plain or undulating surface, occupying upward of 7,000,000 square miles, and in western Asia, around the Caspian, there are extensive tracts of country many feet below the level of the sea. The great plain or steppe of Ischim, in Siberia, extends from the eastern slope of the south extremity of the Ural Mountains across the Tobol to the Irtish, a distance of about 700 miles. It is covered in part with dense forests, and abounds in game. Next to this plain is the steppe of Baraba, occupying the space between the Irtish and the Upper Obi. To the south of these steppes is another of several hundred miles in extent, lying between the Altai Mountains and the east confines of Tartary, and including Lake Tengiz. In the east of China, again, there is an alluvial plain of 210,000 square miles, most of it productive and highly cultivated, and in Hindoostan there are plains that extend 2,000 miles along the southern slope of the Himalayas. The steppes of Asia generally consist of rich pastures, intermingled with woods, barren sands, muriatiferous clay, and abounding in lakes, pools, and streams of salt and bitter waters.

16. Deserts are numerous in Asia, and many of them of great extent. The most remarkable is that of the Great Gobi or Shamo, "sea of sand," occupying an area of 300,000 square miles in its eastern extremity; its whole length being probably not under 1,200 miles. The great salt desert of Irak-Ajimi, in Persia, is about 390 miles in length and 210 in breadth. There are, besides, four other deserts in this country, the whole occupying three tenths of its entire surface. In Tartary there are the great deserts of Kizil, Koom, and Khiva, which, with other tracts of a similar description, and equally sterile, extend over nearly half the country. The deserts of Afghanistan, northwest Hindoostan (the Indian desert), and Tibet are also of great extent, and on southwestern Asia are the vast deserts of Arabia, occupying many thousand square miles.



TRAVELING IN THE ARABIAN DESERT.

17. Asia contains some of the largest rivers in the world. Those in western Asia are the Euphrates and Tigris; in eastern Asia the Amoor, the Hoang-Ho, the Yang-tse-Kiang, the Hong-Kiang, and the Sang Koi or Tonquin River; in northern Asia the Obi, the Irtish, the Yenisei, the Lena, the Indigirka, and the Kolyma; in southern Asia the Indus and its confluents, the Attok, Jhelum, Chenab, and Sutlej; the Ganges, the Brahmapootra, the Irawady, the Martaban, the Menam, and the Camboja. Some of the basins of these rivers are of vast extent. That of the Obi is the largest in the world with the exception of those of the Amazon and Mississippi. The river of greatest length in Asia is the Yang-tse-Kiang, the development of which is 3,300 miles; that of the Yenisei 3,100 miles. The lengths of the other principal rivers are from 1,600 to 2,400 miles.

18. The largest lake or inland sea of Asia is the Caspian, it has no outlet, is about 750 miles in length, from north to south, and about 230 in breadth, having an area of 18,000 square miles. Next in extent is Lake Aral, in Tartary, about 270 miles in length, and varying from 100 to 120 or 130 miles in breadth; area 3,372 square miles; it is shallow, and, like the Caspian, has no outlet. The other principal lakes to the east are Lake Tengiz or Balkash, about 150 miles in length, varying in breadth from 20 to 50 miles, and Lake Baikal, in Irkutsk, Siberia, the largest of Alpine lakes. It is a fresh-water lake, embedded in a knot of mountains, is of a crescent shape, and about 350 miles in length by about 40 miles only in breadth. There are, besides, a number of smaller lakes dispersed over the continent. A great many of them are salt, some of them intensely so, and also bitter.

19. All the precious and useful minerals are found in Asia. Diamonds are found in Bundelcund, Sumbhulpoor, Gundur, the Deccan, the Ural Mountains, Borneo, and Ceylon, and various other places. Rock-crystals, amethysts, rubies, turquoises, cornelians, agates, onyxes, beryl, lapis lazuli, topazes, and many other precious stones, are found in numerous different quarters. Gold is found in a great many of the countries, but is, perhaps, most abundant in Siberia, in the Altai chain, called emphatically the Gold Mountains, in the Chinese province of Yunnan, in the mountains of the Indo-Chinese peninsula, in Japan, and in Borneo. Silver is a product of China, Asiatic Russia, Anam, and the Japanese and Ottoman empires; mercury of China, Tibet, Japan, India, and Ceylon. Tin is met with over all the Malay peninsula, in Burmah, China, and some of the islands of the Indian Archipelago; copper and iron in Japan, Asiatic Russia, Tibet, Hindoostan, Anam, Persia, Asiatic Turkey; in most of which countries lead also is found. Coal has been discovered in northern China, Bengal, and in some of the islands of the Indian Archipelago, and doubtless exists in many other localities not yet explored. Salt is very generally diffused over the continent, few extensive districts being altogether destitute of salt lakes or springs; but our knowledge of the distribution of the mineral wealth of Asia, as well as on many other points, is still exceedingly imperfect.

20. Asia possesses every variety of climate, from excessive heat to the most intense cold. This variety of climate is further increased by local influences, particularly by the great heights of its table-lands and mountains, by its compact configuration, not being deeply penetrated by gulfs, and by the great extension of land it presents toward the pole and regions of perpetual ice. Beyond the 56th parallel of north latitude, which includes all Siberia, the ground is permanently frozen, in some places to the depth of 30 feet; and a degree of cold exceeding 96° below the freezing-point is here of annual occurrence; while in other parts of the same region, such as Tobolsk, Barnaul, and Irkutsk, the summers are equal to those of Berlin, Münster, and Cherbourg. The greatest heat experienced in Asia occurs in the province of Mukran, in Beloochistan.

21. But the remarkable variety of climate for which Asia is distinguished is not manifested by its larger regions alone, but is equally exhibited within the limits of its different countries down to their provinces and districts. Thus, in Afghanistan, the snow lies in some places for three months in winter, and the thermometer sinks to from 10° to 15° below zero; while in summer it ranges from 90° to 94°. At Delhi the winter's cold is sometimes 3° or 4° below freezing, while at Calcutta the thermometer rises to 110°. These extraordinary varieties and

sudden vicissitudes of climate are owing, in the greater number of instances, to corresponding elevations and depressions of the earth's surface, but are, in some cases, the result of other influencing causes. The violent winds called typhoons prevail in southeastern Asia, between latitudes 4° and 40° north; their sphere of action diminishing westerly to a space included between 13° and 26° north latitude. They thus comprise all China and the empire of Anam or Cochin China, to which countries, indeed, and neighboring seas, they seem to be almost exclusively limited. These destructive winds blow at all seasons, but rarely between May and December. The monsoons, which also prevail in this quarter of the world, extend into Asia, from their central region in the Indian Ocean, as far as latitude 36° north, including China, all Hindoostan, the Punjab, and part of Tibet. They blow regularly from the southwest from April to October, and from the northeast from October to April; the change being accompanied by heavy rain, and violent storms of thunder and lightning. South of the equator the monsoons blow from the southeast and northwest during the same periods.

22. The rainless regions of Asia are of vast extent, one of these extends from Delhi, in northern Hindoostan, to near Nertchinsk, in southeastern Siberia, a distance of about 2,500 miles, with a width of nearly half that extent. It thus includes part of Tibet, the great desert of Gobi, and part of Mongolia—a space estimated to comprise two millions of square miles. The other is the continuation of the vast rainless region which, commencing on the borders of Morocco, terminates in Beloochistan, of which latter it includes the greater part, with a large portion of Persia, the north part of Arabia, and the south of Syria.

23. The vegetation of Asia is as various as its climate; and is further diversified by geographical position, and by the higher or lower elevations on which it is exhibited. The extreme southern portions only, including Anam, Siam, the Malay peninsula, Burmah, peninsular Hindoostan, the shores of the Persian Gulf, and Arabia, exhibit the characteristic features of tropical vegetation, excepting in partial instances; the other portions display those of temperate regions, extending north into those of the arctic zone.

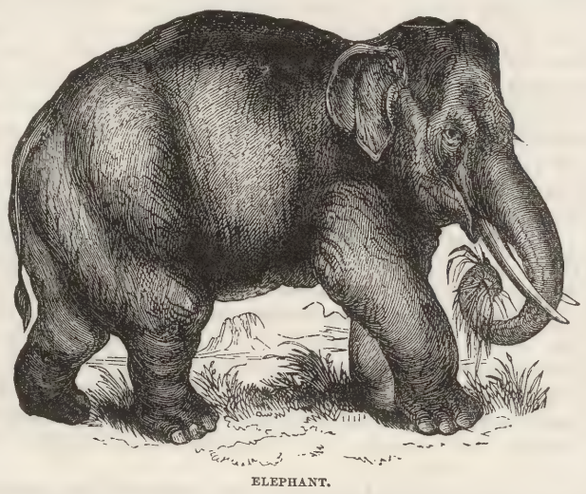
24. In western Asia the vegetation approaches nearly to that of India at the one extremity, and to that of Europe at the other. North of the Altai and Yablonoi-Krebit mountains, perhaps the most characteristic vegetation is the pine tribes, which pervade this part of the continent throughout its whole extent. On the eastern coast the pines descend south through Manchooria and China to near the tropic of Cancer; and in the west of Asia they proceed in a southeast direction from the Caucasus Mountains along the plateau of Iran to the Himalaya Mountains, over all which the species are plentiful, and thus nearly quite encircle Mongolia and Tibet, regarding whose vegetation comparatively little is yet known.

25. The southern parts of the continent, comprising Arabia, southern Persia, Beloochistan, India, Burmah, Anam, Malacca, the southern part of China, and the islands of the Indian Archipelago, are altogether a palm region. No cereals are cultivated in Asia north of about latitude 62° north. From that parallel south to the Altai there are two regions; the most northern characterized by the cultivation of barley, oats, and rye, and the most southern by that of rye and wheat. Over both, buckwheat and potatoes are raised.

26. The western part of the continent, south of the Altai to about latitude 26° north, is wholly a wheat region, excepting the coasts of Anatolia and Syria, where maize is likewise cultivated. On the west coast of Arabia and in the south of Persia and Beloochistan and the north of India wheat and rice are cultivated.

27. The whole of southern India and the littoral countries of the eastern coast, as far north as the south end of the island Sagalin, including the Japanese islands, are characterized by the cultivation of rice. The tea-plant is cultivated over nearly the whole of China and Cochin-China, between latitudes 17° and 35° north, and longitudes 94° and 120° east, which includes Upper Assam; but is most successful between the parallels of 25° and 33° north, which comprehends the principal tea districts. It is also cultivated in the Japanese islands. Cotton is grown in central and southern India, Burmah, Siam, Anam, and China; sugar in Bengal, and the other countries to the east just named, also in Malacca. Ceylon is famed for its coffee, which is also grown on the coast of Malabar. Cinnamon luxuriates in Ceylon, probably its native seat, and is grown in Anam. Nor would it do, even in this short and imperfect enumeration of the vegetable riches of Asia, to overlook that most valuable, and at the same time most baneful plant, the poppy (*papaver somniferum*), which flourishes in the southern parts of Anatolia, in Syria, and east into India.

28. Asia has 288 mammalia, of which 102 are peculiar. The quadrupeds of the continent and islands include the elephant, rhinoceros, camel, lion, tiger, leopard, panther, hyena, tapir, wolf, bear, wild boar, hog, dog, antelope, deer, chamois, stag, ox, buffalo, horse, goat, sheep, wild ass, monkey, ape, fox, hare, squirrel, jackal, elk, marten cat, wild cat, weasel. The habitat of the elephant extends from the southern point of Sumatra, latitude 6° south, through that island, across the peninsula of Malacca, over the southern province of China, throughout all India, including Ceylon, to nearly latitude 30° north. It is also met with on the Himalayas, at a height of 5,000 or 6,000 feet, and roams wild in immense herds through the forests and jungles at the foot of these mountains. The habitat of the rhinoceros is nearly the same, only extending a little farther north in China. The camel is a native of Asia, where, from the earliest ages, it has formed the chief means of communication between the different regions of the East. The greatest numbers and the best are produced in Arabia. The camel of central Asia is the Bactrian camel, which has two humps. The latter is the only description of camel known in other parts of Asia, where it occurs chiefly in a domesticated state.



ELEPHANT.

29. The Asiatic lion has no mane, and is confined to a comparatively limited region, extending from Mount Zerdah-Koh, in the Persian plateau, latitude 32° north, to Goojerat and the jungle countries of India on the east, and to the districts bordering on the Euphrates on the west. The tiger of Asia (royal tiger) has its chief habitat in the sultry jungles of Bengal, but it occasionally wanders as far as the Altai and Himalaya mountains, which it ascends to a height of 9,600 feet in search of prey, and to the mountains of Persia and Armenia. The leopard, panther, and hyena are common and are met with everywhere, with the exception, as regards the last, of the Burnam Empire, in which there are neither hyenas, wolves, foxes, nor jackals. The leopard, like the tiger, ascends the Himalaya Mountains to great heights. The tapir is confined to the Malay peninsula and the southern provinces of China.

30. Among the most remarkable of the Asiatic bears are the Syrian bear, which is seldom met; the Tibet bear, an inhabitant of the mountains of Silhet and Nepaul; and the sun-bear of Sumatra. The reindeer occurs in the northern parts of Asia; the fallow-deer in the northern parts of Persia and China; the common stag or red-deer and the roebuck in Siberia, between the Altai Mountains and the Lena. Various kinds of oxen have been domesticated in India from time immemorial. The most remarkable of these are the Indian ox, which has

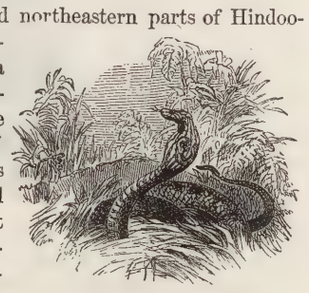


INDIAN OX.

a hump on the shoulder, and the Tartary ox, with a beautiful white silky tail. The buffalo is native in China and India; it is a large animal, and in its wild state formidable. The horse is now known only as a domestic animal, although believed to have at one time run wild in the central plain.

31. The greatest number of species of the goat family occurs in Asia, one of the most celebrated being the goat of Cashmere, which is also spread over Tibet, where they browse at elevations of from 10,000 to 13,000 feet. The sheep is originally from the countries of western Asia, and, like the goats, is most numerous in this part of the world. The wild ass or onagra of Tartary, a lively and handsome animal, of great speed, is regarded as the origin of the common ass. It inhabits the dry, mountainous parts of Great Tartary, ranging in summer as far as latitude 48° north. Wild asses abound likewise on the elevated regions of Tibet. Of the ape and monkey tribe, Asia has 180 species. Monkeys are found only on the coast of India, Cochin China, and the Sunda Islands; apes in the Malayan peninsula. The Asiatic species of gnawers are all, with the exception of the jerboa, which burrows in sandy deserts, confined to Siberia; the most remarkable of these is the flying squirrel. At the junction of Europe and Asia, on the coasts of the Black Sea and the Caucasus, the European and Asiatic forms of animals are mixed and pass into each other.

32. The chief haunts of the reptilia are the northern and northeastern parts of Hindoostan, between about longitudes 78° and 100° east, and between the Himalayas and the Bay of Bengal, and China in a less degree. The reptile fauna of Asia, so far as known, comprise only 44 species, but there is little doubt that many more remain to be added to the list. At the head of this class of animals stands the crocodile, the Asiatic genera of which is the gavial (*gavialis gangeticus*), frequenting the Ganges and other great Indian rivers. The crocodile with the helmet (*crocodilus galeatus*) and the double-crested crocodile (*crocodilus biporcatus*), are numerous in various quarters, both continental and insular. Among the serpents of Asia are the cobra de capello, and a species of trignocephalus, both among the most dangerous snakes in existence; vipers, two species of which are peculiar to Asia; tree-serpents, inhabiting the great tropical forests; boa constrictors, pythons, the largest snake of the Eastern world; chameleons, fresh-water tortoises, of which eight are peculiar to Asia. Sea and fresh-water snakes are also numerous.



COBRA DE CAPELLO.

33. The number and variety of birds in Asia is too great to attempt either enumeration or description; they include eagles, vultures, falcons, buzzards, quails, pheasants, partridges, starlings, herons, storks, cranes, swans, wild ducks, pelicans, nightingales, etc. In southeastern Asia birds of the most gorgeous plumage abound; while several of those above mentioned, though bearing European names, here present themselves in the splendid hues of the tropics. Asia is peculiarly prolific in gallinaceous fowls, some of them possessing most brilliant plumage. Among these may be named the horned pheasants of the Himalayas, a species of tragophans, the gold and silver pheasants of China, and the argus pheasant. To the southern part of continental Asia we are indebted for that most valuable of domestic fowls, the common cock and hen. The same or similar species of insects and fishes being diffused over a very

wide extent of country, it becomes much more difficult to adduce such as peculiarly characterize any particular locality than when dealing with quadrupeds, which are not endowed with the same facilities of locomotion.

34. Asia is supposed to have been the cradle of the human race. It contains a vast variety of tribes and nations. The great divisions or families consist of the Caucasian group, the Mongol-Tartar group, and the Malayan and Ethiopian nations. The first occupy nearly the whole of western Asia, the Himalayas to the Brahmapootra, and all India between these mountains and the ocean. The Mongol-Tartar family occupies all Asia north of the Persian table-land and of the Himalayas, the whole of eastern Asia from the Brahmapootra to Behring's Strait; it includes the Mongol and Tartar tribes, the Chinese, Indo-Chinese, and Japanese. The Malay nations occupy the Indian Archipelago; the Ethiopian, Ceylon, Borneo, Sumbawa, Timor, and, exclusively or partially, numerous other islands. These great divisions of the Asiatic population are again subdivided into numerous tribes.



35. Of the four principal groups mentioned, the Caucasian is the handsomest, and probably the most intellectual, though this admits of question. A portion of the Mongol-Tartar race are also capable of high culture, especially the Chinese. The Kalmuks, a branch of the same family, who lead a pastoral life on the steppes of central Asia, are an intelligent and well-formed race. The Malayan nations are dark, with lank, coarse, black hair, flat faces, and obliquely set eyes. They are active, ingenious, mild, and gentle in some places, in others fierce and vindictive. The most numerous of the great Asiatic races is the Mongolian, next the Caucasian, then the Malay, and lastly the Ethiopian, frequently now called the Papuan race.

36. The languages of Asia are nearly as numerous as its tribes, there being, according to Aderburg, no fewer than 937 dialects. The prevailing religions of Asia are Brahminism and Buddhism; the former being professed in Hindoostan, the latter in China, Japan, Anam, Siam, the Burnam Empire, Ceylon, and among the Mongols and Tunguzes. In the southwest of Asia Islamism prevails, and Mussulmans are numerous in India, Malacca and many parts of the Indian Archipelago. There are multitudes of other sects in various parts of the continent.

37. The countries of Asia comprise—Asiatic Turkey, including Anatolia or Asia Minor, Armenia, Syria, Irak and Mesopotamia, and part of Arabia; independent Arabia; Persia, with Afghanistan and Beloochistan; the Punjab; Hindoostan; the Indo-Chinese peninsula, including Burmah, Siam, Anam, Malacca, etc.; the Chinese Empire, in which are included China proper, Manchooria, Mongolia, Tibet, etc.; Turkistan or Independent Tartary; Asiatic Russia, viz.: Siberia and Transcaucasia; the Empire of Japan; and numerous large and valuable islands. These will each be considered under separate captions.

RUSSIAN ASIA.

1. Russian Asia consists of two grand divisions: Trans-Caucasia and Siberia; the former occupying the country to the southeast of European Russia, and the latter an immense region stretching from the Ural Mountains to the Pacific, and covering the whole of northern Asia.

2. Trans-Caucasia is bounded north by the Caucasus Mountains and the river Kuban, east by the Caspian Sea, south by Persian and Turkish Armenia, and west by the Black Sea. Its situation is between latitudes 38° 20′ and 44° 30′ north, and longitudes 37° 30′ and 50° 20′ east. The greatest extent of the country, measured along the line of the Caucasus, is between 600 and 700 miles, but the average length is scarcely half that extreme, nor does its width exceed 200 miles. The area is estimated at 80,915 square miles.

3. The principal feature of the country is the mountain chain which extends from near Anapa, on the Black Sea, to the peninsula of Aspheron, on the Caspian, with a breadth varying from 60 to 120 miles. The highest part of the chain lies to the east of Mount Elbruz, itself 17,796 feet high, and contains numerous summits which rise above the snow-line. Westward of the Elbruz the chain extends to the northwest, parallel to the shores of the Black Sea, at a distance of 20 to 30 miles, presenting in its eastern portion a series of granitic and pophyritic summits, flanked by shapeless masses of black schist, over which rises a wall of Jura limestone to the height of 7,000 or 8,000 feet, and cleft by deep ravines. Westward the summits decline in elevation, and terminate under the waters of the Black Sea. The sea itself is bordered by a long series of white or gray shelving rocks. Along the Caspian, north of the main chain, lies the Daghestan or hill country, which consists of a succession of hills and valleys, formed by its offsets.

4. The southern slopes of the central and eastern Caucasus subside into two great valleys or river basins—the one extending 330 miles northwest from the Caspian, with a mean breadth of 75 miles, is drained by the Kur and its numerous affluents, and the other extending only about 120 miles from the watershed westward to the Black Sea, is drained by the Rioni. The mountains of Karlini, which form the watershed between these two great valleys, are of comparatively small elevation, and do not rise higher than 6,000 feet; but as the range extends westward along the southern side of the basin of the Rioni, toward the mouth of the Choruk, under the name of the mountains of Akhaltsike. the summits reach in some instances to 10,000 feet.

5. The southern side of the basin of the Kur is formed by a high mountainous country, which contains in its bosom the great lake of Gukcha Erivan or Sivan; and one of its summits, Ali-Ghuz, rises to the height of 12,000 feet. To the south of these mountains we find the long, narrow valley of the Aras (ancient Araxes), which forms throughout the greater part of its course the boundary between the Russian and Persian territories. A small part of the province of Armenia projects south of the Aras, and includes the high mountain of Ararat or Agri-dagh, which is covered with perpetual snow. The whole of the province is an elevated plateau.

6. This country includes several ancient kingdoms, states, and provinces, whose name and people have acquired historical celebrity; and are known as Georgia, Erivan, Shirwan, Armenia and Azerbijan, Imeritia, Mingrelia, Daghestan, etc. The whole is now formed into a single general government, having its seat at Tiflis; and six governments—Kutais, in the northwest, Tiflis in the west and center, Erivan in the southwest, Shamachi in the southeast and east, Derbend in the northeast, and Schamkal on the Caspian Sea.

7. The extent, population, etc., of the several governments above named are as follows:

Governments.	Area, sq. m.	Popula.	Governments.	Area, sq. m.	Popula.
Derbend (Daghestan, Leschistan, etc.)	14,392	433,274	Tiflis (Georgia, etc.)	25,735	491,485
Schamkal, Territory of	1,239	25,785	Kutais (Imeritia, Mingrelia, Abassia, etc.)	8,237	305,702
Shamachi (Shirwan, Baku, etc.)	23,286	603,006	Erivan (Armenia, etc.)	8,126	294,322

—each of which is named after the chief town within its borders. The total population is 2,173,584 or 25.6 inhabitants to the square mile.

8. The inhabitants with few exceptions are of the Caucasian family, and, indeed, are considered as the parent stock of that race which now sways the destinies of the western world. They, however, consist of many tribes, speaking different languages, and of different religions —Greek and Armenian Christians and Mohammedans of various sects. Physically they are the most perfect of the human race. The females are said to be very beautiful. The men are generally active, brave, and warlike.

9. Except in the towns, the people are essentially agricultural or pastoral; and enjoying a mild climate they produce all the cereals and many of the more valuable fruits. In Tiflis the vine is cultivated, and the rearing of bees is extensively engaged in. In the more hilly regions cattle raising is a general occupation, and stock of all kinds is both plentiful and of good breeds. Wool of excellent quality is produced. Cotton, silk, saffron, etc., are also produced. The manufactures include carpets, silk tissues, shawls, etc. The commerce of the country is comparatively large, and has its principal centers at Derbend, Tiflis, Erivan, etc. Trade is chiefly in the hands of the Armenians and Jews.

10. Tiflis, the capital, stands on the right bank of the Kur, and contains 50,000 inhabitants. Latitude 41° 41′, and longitude 44° 51′. It stands in a narrow valley, and is defended by walls and several forts. The old quarter on the river comprises numerous Armenian churches and large caravansaries, and is the principal seat of trade. The upper town or Russian quarter



CITY OF TIFLIS.

has broad streets and open squares, the government offices, barracks, etc. The Armenian cathedral is a large and striking edifice, and Tiflis has several mosques. The great road which crosses the chain of the Caucasus through the pass of Darjal, commences here, and proceeds up the valley of one of the tributaries of the Kur until it enters the mountain region. The other principal towns of this government are Douchetti, 27 miles north-by-west from the capital; Govi, 45 miles northwest, Gangah or Elizavetpol, 90 miles southeast; Telavi, 35 miles northeast-by-east; Sighakh, 56 miles east-by-south, and Akhaltsike or Akiska, 110 miles west. The last-named place was formerly the capital of a pashalic, and contained 40,000 inhabitants, but is now much reduced and is most noted for its fine ruins. At Khartous, 30 miles southeast of Akhaltsike, where the Trapovanie and the Kur form a junction, the country is completely volcanic, and for several miles up the Kur the rocks are everywhere covered with lava, and in localities volcanic action is still rife, exhibiting itself in the constant ejection of ashes and scoria.

11. Derbend is a fortified town on the Caspian, and has about 12,000 inhabitants, chiefly Mohammedans, with a few Armenians and Jews. It is situated at the foot of a mountain at the entrance of a defile of the Caucasus, called by the ancients the "Albanian Gate," and formerly shut in on the north by an iron gate. The town is inclosed by two walls of singular masonry, 8 feet thick and 26 feet high, probably 1,500 years old, and seven gates lead to the different quarters. The streets are regular but narrow, and the upper city separated by a wall forms the citadel. Derbend has no proper harbor. Baku, 130 miles southeast, is situated on the south side of the peninsula of Apsheron. The soil in its neighborhood is completely saturated with naphtha, which issues both from natural crevices and wherever a hole is bored. Sulphurous vapors likewise rise from the ground and give evidence of the continued

action of subterranean heat. Shumachi is an inland city of 8,000 inhabitants, about 60 miles west from Baku.

12. Kutais, on the Rioni, and Poti at the mouth of the river, are small towns in Imeritia. In Abassia, upon the shores of the Black Sea, there are several small Russian fortresses. Erivan, in Russian Armenia, lies in the plain which extends from the northern foot of Mt. Ararat, and on the river Zengy, a small tributary of the Aras. The adjacent hills and valleys are covered with the vine and other fruits, but the country in the more immediate vicinity of Ararat consists of a parched volcanic soil. In 1840 this region was visited by a tremendous earthquake, which shattered part of the mountain and diminished its elevation.

13. Siberia, occupying the whole of northern Asia between latitudes 45° and 78° 20′ north, and longitudes 59° east, *eastward* to 170° west, is bounded north by the Arctic Ocean, east by the Pacific, south by the Sea of Okhotsk, the Chinese Empire, and Independent Tartary, and west by Russia in Europe; and in its greatest length, east and west, measures 4,200 miles, and in its greatest breadth, north and south, about 1,960 miles. Area 5,183,485 square miles.

14. This territory has less diversity of surface than might, from its great extent, be presumed. Assuming, however, the 105th meridian as a line of demarkation, two regions are found, exhibiting very diverse features. Both have their greatest elevation in the south, sloping gradually to the Arctic Ocean; but the eastern region is traversed in different directions by several mountain ranges, whereas the western, with the exception of the chain of the Ural on the west and that of the Altai on the south frontiers, forms a vast plain. Toward the south this plain has a height of about 2,000 feet above the sea; toward the north it is so near its level as often to become extensively inundated.

15. The western section of Siberia has been arranged, according to its productive capacities, into four divisions—the steppe or pastoral, the agricultural, the woody, and the tundra or moorland. The steppe, occupying the most elevated parts of the plain, extends from the southern frontier north to the 55th parallel, and from the western to the banks of the Irtish, and consists chiefly of what is called the steppe of Ishim—a bare and almost sterile surface, often incrusted with salt, but also occasionally covered with a scanty vegetation, over which nomadic tribes roam with their flocks and herds. The agricultural division extends north to about the 60th parallel. In many parts, where it borders on the steppe, it has much the same character, and within it, though not properly belonging to it, is the steppe of Baraba, between the Irtish and the Obi.

16. The north portion of the steppe of Baraba, though flat and swampy, is covered with nearly continuous forests, and haunted by various wild animals. This may therefore be considered as the commencement of the wooded division, which extends north to 64° and in parts to 66°; though in the higher latitude the trees are seldom of vigorous growth. The whole of this division is covered with vast forests of birch and different species of fir and pine; nor is it at all adapted to agriculture. The inhabitants, few in number, are settled chiefly on the Obi and Yenisei, and live mostly on game and fish—the latter, including salmon, sturgeon, and herrings, ascending from the sea as far as the confluence of the Tomsk. Wild animals are also very numerous, and many valuable furs are obtained.

17. The last division is that of the moorlands, consisting of a low, monotonous flat, covered with moss and nearly destitute of trees. It extends along the shores of the Arctic Ocean, and has so rigorous a climate that even in summer ice is found a few inches below the surface. Here the reindeer exists in vast herds; bears and foxes are also numerous, and the coasts and mouths of the rivers are frequented by immense shoals of fish and flocks of waterfowl. One remarkable feature in the western part of this region is an isolated mountain, which rises with steep sides to the north of Obdorsk, and forms a kind of range divided into five summits, the loftiest of which attains the height of 4,992 feet.

18. Siberia to the east of the medial meridian, forming nearly one half the whole territory, has a much more diversified surface than western Siberia, and owing partly to its general ruggedness and elevation, and partly to the greater severity of the climate, has much less land adapted to agriculture. The Sea of Okhotsk has a bold and rocky shore, and the country behind rises with a steep ascent till a mountain range is formed, with a general altitude of 3,000 feet. This range, under the name of the Stanovoi Mountains, runs nearly parallel with the coast till it reaches the frontiers of China, where it takes the name of Jablonnoi, and proceeding westward continues for a long distance to form the boundary between the two empires. It then takes the name of Daouria, and throws out numerous ramifications, which, continuing west, throw their arms round Lake Baikal, and cover almost all the south part of Irkutsk. Other ramifications proceeding north form the watersheds of the numerous affluents of the right bank of the Lena. On both sides of this river the surface continues elevated and forms a table-land. The best portions of eastern Siberia occur in the south of Irkutsk, where, in the lower and more open valleys in the vicinity, cultivation has been attempted with success.

19. The north part of eastern Siberia consists of two distinct portions, the one extending from 105° to the lower valley of the Lena, and the other from that valley to Behring's Sea. The former consists chiefly of pasture ground, well adapted for the rearing of cattle, or of moorland wastes, on which only the reindeer can find a subsistence. The latter portion, as far as the Kolyma, is traversed from north to south by chains of low hills, separated from each other by wide valleys or open plains, and generally overgrown by stunted larch and birch. In these are numerous lakes, generally well supplied with fish, and bordered by low banks on which a rich grassy sward is seen. Where the drainage is incomplete, extensive morasses are formed. To the east of the Kolyma, branches from the Stanovoi Mountains stretch northward, and form a series of ranges which frequently rise from 2,000 to 3,000 feet. Some of these penetrate to the north coast, and are seen forming precipitous cliffs at Shelatskoi-Nos, Cape North, and other headlands. Other ramifications from the Stanovoi pursue an opposite course, and traverse the peninsula of Kamtchatka almost centrally to its southern extremity.

20. Almost all the rivers flow north to the Arctic Ocean. The only exceptions are in the east, where the Anadir flows into Behring's Sea, and a number of smaller streams fall either into the same sea or into the Sea of Okhotsk, and in the southeast, where part of the government of Irkutsk is drained by affluents of the Amoor. The great rivers belonging to the basin of the Arctic flow for the most part through immense tracts of level country, and are remarkable at once for their length, volume, and continuous navigation. The advantages they offer in the latter respect are diminished by the long period during which they are frozen over; but even then they do not cease to be available for traffic, and become in fact the great highways of the country.

21. The Obi is one of the largest rivers of the world, and has a length of 2,400 miles, and in its course receives the Irtish, Ishim, and Tobol, which, by uniting their streams, nearly double its volume, and the Tomsk, Tchulim, and Ket, each in themselves important rivers. The estuary of the Obi forms a gulf from 70 to 80 miles wide, and above 400 miles long. The Yenisei, the second river in importance, is equally long, and drains as large a surface as the Obi. Its most important affluents are—the Selenga, which, coming from Mongolia, debouches into Lake Baikal; the Angora, which receives the discharge of the lake, and in the lower part of its course takes the name of Upper Tunguska; the Middle Tunguska, and the Lower Tunguska. The estuary of the Yenisei is about 20 miles wide and 200 miles long. The Lena, rising scarcely 20 miles west of Lake Baikal, has a course of about 2,000 miles, and becomes navigable at 50 miles from its source. Its principal affluents are the Vitim, 700 miles long; the Olekma, which flows 500 miles through interminable forests; the Aldan, and the Viliui.

22. The three large rivers above mentioned, which far surpass in magnitude all others of Siberia and form its main trunks, are remarkable not merely for their common north direction, but for the parallelism of their courses, which, particularly in the first two, the Obi and the Yenisei, is not confined to the main streams, but is very apparent even in their tributaries.

23. The most important of the minor rivers which send their waters directly to the Arctic Ocean, are the Taz, between the Obi and Yenisei; the Katunka, the united Anabara and Olem, and the Olenek, between the Yenisei and Lena; and to the east of the latter the Yana, Indighirka, and Kolyma. The courses of these vary from 500 to 700 miles. These minor rivers, like the larger, abound with fish, and at their mouths are frequented by such immense flocks of waterfowl as often to darken the atmosphere for miles around. The only important lakes are those of Baikal, in Irkutsk, and Tenghiz, chiefly in Omsk, but partly beyond the Chinese frontier.

24. The geology of Siberia is very imperfectly known, and at least one half of its territory has never been examined by the scientific. Granite and crystallized schists are found chiefly on the east slopes of the Urals, in the south among the ranges of the Altai, and in the very eastern extremity of the country to the shores of Behring's Strait. Volcanic rocks compose the great mass of the mountains which skirt the west shore of Lake Baikal, and are seen in a still more magnificent form in the mountains which proceed from north to south through Kamtchatka, where are several active volcanoes. Palæozoic rocks are developed chiefly in the south, where they occupy a large space north of Irkutsk; and another large development of the same rocks is seen on the northwest and north of the Sea of Okhotsk, and to a considerable distance inland. Secondary rocks, higher in the series than the carboniferous system, commence near the north shore of the Lake Tenghiz, and stretch north on both sides of the Irtish, including districts around lakes Tchany and Soumy. But by far the most extensive formation in Siberia is the tertiary, which stretches almost continuously from the last slopes of the Urals east across the Obi to the valley of the Yenisei, and in other quarters, though more intermingled with earlier formations, covers no inconsiderable portion of the whole surface. The shores of the Arctic, and far inland, have a deep alluvial covering, remarkable for containing deposits of fossil elephants and other animals in such quantities that the ivory obtained from them forms an important article of commerce.

25. The minerals of Siberia are evidently of immense value, and though the real extent of surface on which they are found is as yet only roughly guessed at, there can not be a doubt that the most precious of all the metals exists there in greater abundance than elsewhere in the Old World. Till recently the auriferous deposits were supposed to be almost confined to the east slopes of the Ural Mountains. This assumption, however, has been exploded by the discovery that some of the east regions, particularly Tomsk and Yeniseisk, are highly auriferous, and that a tract larger than France contains gold, not in its alluvia, but in the very matrix of its rocks of palæozoic schists and limestones. These regions now yield more than three fourths of the whole amount of gold produced in the Empire. The total product in 1843 was 1,243 pudes (1 pude = 36.12 lbs. avoirdupois), and thereafter, to 1850, the annual product was 1,277, 1,304, 1,629, 1,741, 1,727, 1,634, and 1,516 pudes. The principal mining districts are those of the Urals north and south of Ekaterinenberg, of the Altai, and of Nertchinsk, in the basin of the Amoor. In the first, besides gold, a good deal of copper and iron, and some silver and platinum, are obtained. The second district extends over a great part of the Altai range, but has its central locality at Barnaul. Copper, argentiferous lead, iron, arsenic, and antimony are found in the same region. In the district of Nertchinsk the mines are also particularly rich in lead, tin, zinc, and iron. The valleys of the Yablonoi Mountains are also highly auriferous. In the same district of Nertchinsk are also celebrated mines of emeralds and topaz, found generally in connection with tin lodes. The other minerals of Siberia are salt, found crystallized in the steppes of Ishim and Baraba; jasper and porphyry of great beauty, quarried especially in the valley of the Charysh, among the Altai Mountains; lapis-lazuli, found among the mountains in the vicinity of Lake Baikal; diamonds, found occasionally on the east slopes of the Urals; malachite, obtained from all the mining districts containing copper and mica, in the form of large plates, and extensively used as a substitute for glass, etc.

26. Siberia is remarkable for the rigor of its climate. In proceeding from west to east the cold increases so much as to make places in the same latitude as Berlin to have a climate nearly as cold as Iceland; and the line of permanent ground frost descends in parts as far south as the 56th, and over the whole country as low as the 60th parallel. In the winter the temperature of the atmosphere at Yakutsk is frequently between 50° and 60° Fahr. below zero, and for two entire months the mercury is frozen in the tube. This extreme winter in this region is succeeded by an exceedingly warm summer—thaw usually commences with April, and the summer attains its height in July, in which month the heat not unfrequently rises to 77° or 80° Fahr. The climate of Yakutsk, however, is admitted to be extreme even in Siberia, for in the west part of the country mercury does not freeze every year except in

very high latitudes, and even on the shores of the Sea of Okhotsk, owing probably to the influence of the ocean, the ground is not permanently frozen. In Yakutsk, notwithstanding its long and extreme winter, there are 128 days in the year without frost; and within that period several kinds of grain, not excluding wheat, have time to attain maturity, and in rich alluvial soils often produce a profitable return.

27. At least one half of the whole population of Siberia is Russian, and consists either of voluntary emigrants or of exiles and their descendants. In regard to the exiles, Siberia is merely a penal settlement for political and criminal convicts, and hence society must of necessity be vicious and turbulent. A more unsophisticated and far more interesting population is furnished by the indigenous tribes. These are very numerous, and consist of not only different families but also of different races. In the northwest we find the Samoyedes; south of them, on both sides of the Obi, and on the steppe of Baraba, the Ostiacks; and south of the Altai the Calmucs predominate. These live chiefly by fishing and hunting, and some in the south cultivate their own grain and have abundance of cattle.

28. Among the east slopes of the Altai are several Turkish tribes. The Buriats, the most numerous of all Siberian tribes, dwell chiefly in the vicinity of Lake Baikal. These are of Mongol origin. The Tunguzes are the most widely dispersed of all the native tribes, and are found along the ocean east of 110° and along the Sea of Okhotsk, and also in the interior along the Yenisei and to the north of Lake Baikal. In fact, the Tunguzes inhabit, either by themselves or mixed with the Yakutes and other minor tribes, the greater part of western Siberia. They are fine horsemen, and live chiefly by hunting. The Yakutes, who are of Tartar origin, confine themselves almost wholly to the rearing of horses and cattle, of which they have large herds.

29. The Tchuktchi occupy the peninsula formed in the northeast by the Arctic Ocean and the Sea of Okhotsk, and have a common origin with the Esquimaux. They consist of two tribes, one sedentary and the other nomadic—the former, inhabiting the shores, live by fishing and hunting, and the latter live intermingled with the Koriacks, occupying the interior, where they feed large herds of reindeer.

30. Manufactures are confined to a few of the large towns, where government factories have been established, and consist chiefly of leather, earthenware, porcelain, glass, and hardware. In some places, as at Telma, large woolen and linen factories employ a considerable number of hands, chiefly exiles. The tissues manufactured are generally of a coarse description, and are not in great demand, as almost all the articles of dress are provided at home, and formed with comparatively little trouble out of skins of reindeer, sheep, and various other animals.

31. Trade is a more important branch. In so far as confined to the products of the country, it consists chiefly in the barter and sale of cattle, fish, caviar, furs, skins, and metals. A very important transit trade is also carried on across the country between Russia in Europe and China. The great mart of this trade is the town of Kiachta, through which goods are imported into Siberia to the value of about $15,000,000 annually. Petropaulovsk on the Ishim, and Semipolatinsk on the Irtish, have also a large trade with China and Tartary. For interior traffic the rivers naturally furnish the most important highways, but when these are frozen, the characteristic conveyance is the sledge drawn by reindeer and dogs.

32. The central localities of trade are Obdorsk on the Obi, Turukansk on the Yenisei, Ustransk on the Yana, and Ostronowo on an affluent of the Kolyma. At these places stated fairs are held; and these are remarkable both for the quantity and value of the goods brought forward, and the vast crowds of dealers whom they attract from the remotest quarters.

33. For administrative purposes Siberia is divided into nine governments:

Governments.	Popula.	Governments.	Popula.	Governments.	Popula.
Irkutsk	294,514	Kamtchatka	7,331	Tobolsk	872,268
Yrkutsk	207,030	Semipolatinsk }	450,000	Tomsk	476,355
Yeniseisk	251,778	Territory of the Kirghiz }		Trans-Baikal	327,908

—making a total of 2,887,184 inhabitants, or 56 to every 100 square miles of surface.

34. The principal towns of Siberia are Tobolsk, Tomsk, Omsk, Krasnoiarsk, Irkutsk, Yakutsk, etc. Tobolsk, with 20,000 inhabitants, the largest town in western Siberia, and the chief center of its commerce, lies on the river Irtish, at the junction of the Tobol with that stream. Ekaterinenberg, to the southwest, is situated on the east slope of the Urals, in the midst of the mining district, and contains the imperial founderies and other works, besides a college of mines. Its population is from 10,000 to 12,000. Omsk, a town of 15,000 souls, ranks as the capital of the west. It lies on the Irtish, and at the junction of its tributuary, the Om. Kolyvane, on the Obi, farther to the eastward, has an imperial establishment for polishing jasper vases and similar works. Still farther east are the towns of Tomsk (13,000 inhabitants), on the small river Tom, an affluent of the Obi, and Krasnoiarsk (6,000) on the Yenisei. Kolyvane and the two last-named towns are all situated on the high road between Tobolsk and Irkutsk. Barnaul, to the south of Kolyvane, lies in the heart of one of the principal mining districts of the Altai.

35. Irkutsk, the capital of eastern Siberia, and the best built and handsomest town in the country, lies on the right bank of the Angara, a short distance below its outlet from Lake Baikal. Population 30,000. The houses are chiefly of wood, but the streets are wide and spacious, the public buildings striking, and the shops well stored with Chinese and other merchandise. Irkutsk, indeed, is the center of such refinement as Siberia possesses. Kiachta, to the south of Lake Baikal, on the Chinese frontier, is the great depôt of the trade with that empire. Nertchinsk, farther eastward, on one of the upper branches of the Amoor, is situated in the midst of silver and lead mines. Yakutsk, in the more northern part of the country, on the Lena, has only 6,000 inhabitants, but is a great center of the fur trade.

36. Okhotsk, on the shores of the sea of the same name, and Petropaulovsk, on the eastern side of the peninsula of Kamtchatka, are both small ports which maintain some trade with the Russian settlements in America and the neighboring Kurile Islands. The last-named is the station for the Pacific naval fleet of Russia. The Russians have recently formed settlements on the Amoor, and are constantly extending their possessions southward.

[*Weights, Measures, and Moneys.*—Same as in Russia in Europe.]

TURKISH ASIA OR TURKEY IN ASIA.

1. Turkish Asia embraces the most western portion of Asia, and is situated between latitudes 29° 40′ and 42° 54′ north, and longitudes 25° 50′ and 49° 12′ east; and is bounded on the north by the Black Sea, on the east by Transcaucasian Russia, Persia, and the Persian Gulf, on the south by the Arabian Desert, and on the southwest and west by the Mediterranean Sea.

2. Turkey in Asia may be generally described as consisting of two plateaux and of an extensive plain. The larger and more elevated of these plateaux occupies the whole of its northern portion, stretching across it from the shores of the Archipelago to the frontiers of Transcaucasia and Persia, and comprising within its limits Asia Minor and the highlands of Armenia and Kurdistan. This plateau, which has an average elevation of from 4,000 to 5,000 feet, forms the base of two parallel mountain chains, the Taurus and the Anti-Taurus, which increase in elevation toward the east, and present many remarkable cones and peaks, several of which rise beyond the line of perpetual snow.

3. The other plateau, that of Syria and Palestine, is also traversed by two parallel ranges, which, breaking off nearly at right angles to the Taurus, proceed south at no great distance from the shores of the Mediterranean, and are continued, almost without interruption, across Arabia Petræa and the peninsula of Sinai, to the Red Sea. This plateau is less remarkable for its height than for the depression of one of its valleys, which, in the line of the Jordan, is more than 1,300 feet beneath the sea-level.

4. The extensive plain, that of Irak and Mesopotamia, forming the lower basin of the Euphrates and Tigris, is bounded on the north by the Armenian, and on the west by the Syrian plateaux, and though now little better than a steppe, oftener covered with sand than with verdure, originally possessed attractions which marked it out for the cradle of the human race, and made it the earliest seat of empire.



DEAD SEA.

5. The drainage of this vast territory, divided into numerous basins by the mountains which traverse it, is carried to four different seas, of which the Persian Gulf receives the largest share by means of the Euphrates and Tigris, already mentioned; the Black Sea receives its portion chiefly by the Jekel, and Kizil-Irmak and the Sakaria; while the streams which flow into the Archipelago and the Mediterranean are, for the most part, only mountain torrents. The only lake deserving of notice for its magnitude is that of Van, in the east of Kurdistan; though, for other reasons, a far greater interest attaches to those of Tiberias and the Dead Sea in Palestine.

6. The whole of Turkey in Asia is included in the several geographical divisions known as Asia Minor or Anatolia, Armenia and Kurdistan, Syria or Scham, Irak and Mesopotamia, and the west portion of Arabia. These divisions are apportioned into eyalets, the most recent and best-authenticated account of which is according to the annexed table:

	Eyalets.	Area, sq. m.
Asia Minor or Anatolia.	Anadoli	87,740
	Karamania	40,619
	Itshel or Adana	15,212
	Sivas	38,549
	Marasch	9,843
	Trebisond	14,009
	Dschesair and the Islands	2,127
	Cyprus	3,176
	Total Asia Minor	211,275
Armenia and Kurdistan.	Erzeroum	15,284
	Kars	8,284
	Van	12,821
	Bayazid	6,176
	Musch	6,531
	Total Armenia and Kurdistan	49,096
Syria or Scham.	Haleb or Aleppo	11,268
	Damascus	26,694
	Akka with Beyrout	3,115
	Tripoli	2,888
	Jerusalem	6,429
	Country of the Druses and Maronites	2,880
	Total Syria or Scham	53,224
Irak and Mesopotamia.	Urfa	32,090
	Diarbekr	27,109
	Bagdad and Scherisu, or Turcomania	83,944
	Bassorah	13,163
	Mosul	10,443
	Total Irak and Mesopotamia	165,749
Arabia.—Jedda		194,400

—making a grand total of 673,744 square miles. This portion of the Empire contains 16,050,000 inhabitants, of which number 10,700,000 are in Asia Minor, 1,700,000 in Armenia and Kurdistan, 2,750,000 in Syria and Mesopotamia, and 900,000 in Mecca, Medina, etc., in Arabia.

7. So far as relates to government, no difference is made between the Asiatic and European territory. The sultan or padishah is monarch and high-priest over both; and the provinces and minor districts are under the same description of officers in Asia as in Europe. The Arabian country, however, belongs to the pashalic of Egypt, and is not generally considered as a part of Asiatic Turkey.

8. Asia Minor, Anadoli or Anatolia (Ἀνατολή—the East or Levant) comprehends the eyalets of Anadoli, Karamania, Itshel, Sivas, Marasch, Trebisond, Dschesair, and Cyprus, and occupies the whole western peninsula of Asia, and numerous islands in the Ægean Sea. It comprehends the ancient provinces of Bithynia, Paphlagonia, Galatia, Phrygia, Epictetes, Mysia, Phrygia Minor, Acolis, Lydia, Ionia, Lycia, Caria, Berœa, and parts of Phrygia Major and Pisidia.

9. The north coast, facing on the Black Sea, which presents few striking irregularities, is

bold and steep, with very deep water close to the shore eastward, but gradually falls on approaching the Bosphorus. The west coast, from the Bosphorus downward, presents an outline as jagged and irregular, with cliffs nearly as high and precipitous as almost any coast in the world, including the gulfs of Adramyti, Fouges, Smyrna, Scala Nova, Mandelyah, and Kos, within which, however, there are low alluvial shores. The south coast has also a bold, irregular outline, with steep and lofty rocks closely approaching the shore, its chief bays or indentations being the gulfs of Makri, Phineka, Adalia, and Iskenderoon. The principal islands lying off the coast are Cyprus on the south, and Rhodes, Chios, Mitylene, Lemnos, etc., on the west; and there are numerous small peninsulas both on the Ægean coast and that of the Sea of Marmora. The Dardanelles and Bosphorus, two noted straits, separate Asia from Europe in this direction.



COLOSSUS OF RHODES.

10. The surface, which is extremely irregular, may be termed an elevated plateau, supporting still higher elevations, dotted with salt lakes, and inclosed by two ranges or offshoots of the Armenian mountain system, the Taurus and Anti-Taurus, running east and west not far from the shores of the Levant and Black Sea, respectively. Between these two main ranges there are many smaller ones, some of which attain a great elevation; and, indeed, everywhere lofty mountain masses, more or less connected, are to be met with. Of the loftier summits may be named the volcanic peak of Arjisch-dagh (13,100 feet), the highest in Anatolia, situated about 13 miles south of Kaisarieh; besides which there are various others, attaining an elevation of 7,000 to 10,000 feet. The celebrated peaks of Olympus and Ida, the western terminus of the Anti-Taurus or north range, attain 9,100 and 4,960 feet respectively.

11. The chief rivers flow into the Black Sea. The largest is the Kizil-Irmak (Halys), which is supposed to rise about 40 miles east-northeast Siwan, and after a most tortuous course of 600 miles, first west and then northeast, enters the Black Sea at latitude 41° 48′ and longitude 36°. Farther east is the Jeshil-Irmak (Iris), a much smaller river, flowing west-northwest, and entering the sea about 18 miles east Samsoon. In the northwest is the Sakariyeh (Sangarius), rising in the table-land, not far from Angora, flowing west as far as Shughut, and thence north into the Black Sea, which it enters, after a supposed course of about 300 miles, nearly 80 miles east the Bosphorus.

12. The only important rivers flowing toward the Archipelago are the Bakir-chai (Caicus); the Gedis-chai (Hermus, once a famed auriferous stream), flowing into the Gulf of Smyrna after a course of west-by-south of about 200 miles, and the Bojuk Mender-chai (Mæander), after a most tortuous course southwest-by-west of more than 300 miles, joining the sea close to the ruins of the once famous Miletus. On the south, facing the Levant, and proceeding east, are the Doloman-chai (Calbis), Kodja-chai (Xanthus), Ak-Sú, Kopru-Sú (Eurymedon), the Ghük-Sú (Calycadnus), the Tersus-chai (Cydnus), but now a mere torrent, the Sihoon-chai (Sarus), and the Jyhoon-chai (Pyramus), though none of them are of any considerable size, except the last two, which have a length, respectively, of 260 and 180 miles.

13. The great number of salt and fresh water lakes is the most remarkable feature of the geography of Anatolia. The largest of these is the Touz-Ghieul, about 70 miles northeast Konieh, which is about 55 miles long, and from 9 to 15 miles in breadth; it is shallow and much reduced in summer by evaporation. Its waters are briny, and the incrustations on its shores supply the surrounding districts with salt. The other principal lakes are the Kara-Hissar, Ak-Shehr, Egerdir, Bey-Shehr, Soghla, Chardak, and Buldur. Besides these there are the lakes Manyas and Abullionte, near the shores of the Sea of Marmora, and a few others of smaller extent.

14. Granite, serpentine, and schist form the substance of the upper, and limestone of the lower, regions of Anatolia; trachytic rocks being also found east, which are succeeded west, and partly overlaid, by black volcanic breccia, interspersed with angular blocks of trachyte; while the extreme west part of the peninsula, and its south coasts, consist almost wholly of calcareous rocks belonging to the chalk formation. Earthquakes such as those that destroyed Laodicea, Sardis, and other cities of antiquity, still occur.

15. Anatolia contains numerous thermal and sulphurous springs. Some of these deposit pure salt round their orifices, others pure sulphur, and others sulphate of lime or gypsum. There is also much difference in the heat of the springs, some being quite cool, and others nearly 160° Fahr.

16. Mining is not carried on to any great extent. Copper mines, however, are wrought at Bakir-Kurehsi, Tireboli, Tokat, and a few other places. Iron and rock-alum are wrought near Unieh; and lead, with silver, at Denek. Niter is got at Karabunar; and rock-salt, everywhere plentiful, is especially so in the tract near Angora. Marble exists in great abundance; an advantage which the sculptors and builders among the early Greek colonists turned largely to account. Coal also has been found lately along the coast of the Black Sea.

17. Owing to the diversity of its surface elevations, the climate of Anatolia, which presents winter and summer within a single day's journey, admits of no general description. The western shores have been celebrated in all ages for their genial warmth; the thermometer in summer ranges from 84° to 100° Fahr.; rain falls but rarely; but this defect is in some measure supplied by heavy dews. The coast facing the Black Sea is almost equally favored as to temperature, and enjoys the additional advantage of frequent rains. The elevated plains of the interior, which rise about 3,000 feet above the sea, exclusively of mountains towering some thousand feet yet higher, are extremely cold in winter, but salubrious. Summer here is of short duration, and the snow lies pretty deep for about four months in the year. The climate of Karamania, unlike that of the north part, is oppressively hot in summer; very little rain falls; and hence, from April to November, the inhabitants have little water, except what is preserved in tanks and cisterns. The cold in the passes of the Taurus is intense.

18. The northern slope of the central plateau so abounds with forests of oaks, beeches, planes, ashes, and almost all other building timber, that the Turks have called one of its forests the Agatch-Degnis or "Sea of Trees." On the coast there are woods of walnut, quince, mulberry, pomegranate, peach, apricot, plum, and cherry trees. The plains bordering the Kizil-Irmak, Sakariyeh, and Mender afford excellent pasture. The burning coasts of Karamania have a similar vegetation with the coast of Syria. The Taurus Mountains comprise numerous kinds of forest trees, including a great variety of pines. Wine, olives, and figs are abundantly raised in the southern valleys. The poppy also is grown in very large quantities.

19. The flora of western and southern Anatolia, in all the valleys, is extremely beautiful, and will bear comparison with that of Sicily and southern Spain. Shrubs and evergreens are abundant; the latter, including the myrtle—which here attains an immense size—bay, daphne, laurel, and a variety of holly. In strong contrast with all these countries are the vast and frigid plains of the interior, which produce only stunted shrubs, saline plants, wormwood, sage, and some of the ferns. There are other tracts, the only vegetation on which is two species of broom. The wheat of Anatolia is of the bearded kind. Oats are seldom seen; the grain supplied to horses and other animals is usually barley. Maize is raised to some extent.

20. Anatolia has few large beasts of prey, except a species of panther. Jackals are very common in the less frequented regions; and there are a few bears, wolves, and wild hogs. Buffaloes are used for draught, especially in tillage; and the female supplies the place of the cow, which is scarce, in furnishing milk. The horses are strong and well shaped, and the asses fleeter and larger than usual; but in the transport trade of this, as of other Eastern countries, the camel is mostly employed. The long-haired or shawl-goat was once peculiar to this country; but it has traveled East, and is known equally in Persia and Upper India. The sheep are usually of the broad-tailed species. Among the more common birds are the eagle, hawk, hooded crow, bustard, stork and heron, quail, partridge, and others known to Europeans. Land tortoises, lizards, frogs (including the *rana arborea* or tree frog) are more or less common in various parts, and leeches are so plentiful that they form an important article of the export trade to France and Italy, through Smyrna. The coast abounds with many varieties of fish.

21. The Ottoman Turks, who form about nine tenths of the population, are not only the original branch of the Turkish family, but also the largest and most civilized; nor have they, for many centuries, varied to any considerable extent from their primitive type. There are many thousands, however, of so-called Turks, who are not so really, but descended from Greek ancestors. About one twentieth part are Greeks; and the remainder comprise Jews, Armenians, Kurds, and some few Zingari or Gipsies. The true Ottoman Turks are settled mostly in the country, and devote themselves to agriculture, many leaving their houses during summer and leading a nomadic life in tents. The Kurds, also, and the Yürukhs, lead an almost wholly pastoral life, and are found, for the most part, in the hilly districts. Polygamy is rare. The women commonly spend their time in spinning wool, and working it and camel's hair into carpets, shawls, etc. In the rural districts they throw off the vail, which is always worn in towns. The Anatolian Turks are personally handsome. As respects character, all allow them the virtues of hospitality, honesty, singleness of heart, and contentment of disposition. Unlike the Turks of other countries, they are a social people, with less of religious prejudice than prevails in European Turkey.

22. The principal industry of Anatolia consists in the cultivation of the vine and olive. Agriculture, as a practical art, is wholly unknown; and all the implements of husbandry are in the most rude and primitive state. Nature, however, has been so bountiful to the lower lands in Asia Minor, that, with the exception of the cereal products, its agricultural returns may vie with those of Greece and European Turkey. Grazing forms a staple employment, and large flocks of sheep and goats are to be found on the lofty plains of the interior, whose wool and hair form an important article of commerce between Smyrna and Angora. Manufactures are of small account, and are limited chiefly to the weaving of shawls and carpets, the making of Fez caps, etc. Nor is the internal trade as large as might be expected, and this is, no doubt, owing to the want of good roads. External commerce is both extensive and valuable. The principal ports are Smyrna and Iskenderoon or Alexandretta on the west, and Trebisond on the north.

23. The principal cities and towns of the several eyalets are as follows:

Eyalets.	*Capitals* and Chief Places.
ANADOLI	*Kutahya*; Manissa (Magnesia); Adramyti; Angora; Afium-Kara-Hisar; Brusa; Iznik; Sinope; Pergamo (Pergamos); Ak-Hisar (Thyatira); Sart (Sardis); Allah-Shehr (Philadelphia); Esky-Hisar (Laodicea).
KARAMANIA	*Konieh* (Iconium); Karaman; Kaisarieh (Cesarea or Mazaca).
ADANA	*Adana*; Selefkeh (Seleucia); Tersoos (Tarsus)
SIVAS	*Sivas* (Sebaste); Tokat; Samsoon; Amasia; Bafra.
MARASCH	*Marasch*; Derendah; Malatia; Somisat.
TREBISOND	*Trebisond* (Trapesus); Treboli; Karasoon; Rizah.
DSCHESAIR	*Smyrna* (Ismir); Scala Nova; Scutari; Izmid; Rhodes.
CYPRUS	*Lefkosia* (Nicosia); Famagousta; Baffa.

24. Smyrna, the chief commercial city of western Asia, is situated on a plain at the head of the Gulf of Smyrna, and partly on the slope of the ancient Mons-Pagus, which is crowned by a citadel. Latitude 38° 26′, and longitude 27° 9′. It has a fine appearance from the sea, but is in general wretchedly built. The principal edifices are the bazaar and market-place,

the vizier-khan, the governor's palace, and the mosques, churches, and synagogues. Numerous coffee-houses and gardens are scattered along the banks of the Meles, which enters the gulf east of the city; and extensive cemeteries occupy the declivities of Mount Pagus, on which are various remains of the ancient city, the seat of one of the "seven churches" of the early Christian period. Smyrna has been for centuries the most important center of the Levant trade, and is the residence of consuls of all commercial nations. This trade has been carried on both by shipping and by the caravans of Asia Minor, Syria, Bagdad, and Persia. In 1402 Smyrna was ruined by Timur, and it has since suffered repeated vicissitudes, especially from earthquake and the plague; but its admirable situation for commerce has enabled it after each new calamity rapidly to regain its normal position and importance.



CASTLE AND PORT OF SMYRNA.

25. Trebisond (Tarabesoon) is an important fortified sea-port on the southeast coast of the Black Sea, in latitude 41°, and longitude 39° 46′. It stands on the slope of a hill facing the sea, inclosed by a castellated barrier, and is further defended by a citadel on an adjacent height. Outside the walls are deep ravines filled with gardens and crossed by long bridges, and several suburbs, in which are most of the Christian dwellings and the principal bazaars and khans. The Mohammedans inhabit the walled city. The houses are mostly of one story, built of stone, and surrounded with gardens. The city contains 18 mosques and about 20 Greek churches. From its position Trebisond is the natural entrepôt of the trade of Armenia, north Persia, and Georgia with the west, and, owing to the establishment of steam navigation on the Black Sea, its trade has recently received a remarkable extension. The principal articles in the bazaar are alum and copper, from the mines of the interior, and the manufactures of copper. Its exports consist chiefly of silk, wool, tobacco, opium, galls, etc., and the specific manufactures of Asia; and the imports are the raw and manufactured products of the West. From 1203 until the subversion of the Eastern Empire, Trebisond was the capital of an independent dominion extending from the Phasis to the Halys.



TREBISOND.

26. Adramyti is a sea-port four miles from the head of the gulf of the same name, and 80 miles north of Smyrna. It is an ill-built and filthy city, the inhabitants of which are chiefly engaged in exporting olives and wool to Constantinople, and gall-nuts to other parts of Europe. Angora is a very ancient city, and contains numerous remains of Greek and Roman architecture. It is situated on the Enguri-Su, a branch of the Sakariyeh, and about 100 miles south of the Black Sea, in latitude 40° 20′, and longitude 33° 20′. It is surrounded by ruined walls, and contains an old and dilapidated castle, etc. Angora is celebrated for the long-haired goats bred in its vicinity, and the quantity of goats' wool exported annually is estimated at 1,200,000 pounds. The staples next in importance are merino twist and goats' hides, dye-stuffs, gums, and honey and wax.

27. Sivas is situated on an extensive plain near the upper Kizil-Irmak, in latitude 39° 20′, and longitude 37° 10′. It is well-built, and has many old mosques and khans, bazaars well supplied with goods, manufactures of woolens, etc., and a considerable transit and import trade. Sinope, on the Black Sea, is situate on an isthmus connecting a high rocky peninsula with the mainland, and has on its west side the best port on the north side of Asia Minor. Latitude 42° 2′, and longitude 35° 12′. It is one of the great naval stations of Turkey, but was almost destroyed by the Russians in 1855. Intermediate between Sinope and Trebisond is Samsun, which, though a small place, has considerable commerce, and is a busy entrepôt for the copper, timber, etc., of the interior. The population, about 2,500, is wholly Turkish; but in the vicinity there is a Christian village of some 1,000 inhabitants.

28. Konieh, the capital of Karamania, is a large city, and famous for its carpets and colored leather. It contains many fine buildings, and especial reference may be made to the Injemi Minereh Djami or "mosque with the minaret reaching to the stars." Kaisarieh is another important inland town. It is situated at the north foot of Mt. Argæus or Erjish, 160 miles east-northeast of Konieh. Its inhabitants are noted for commercial enterprise. It is the entrepôt of a large extent of country, and has communication with all the sea-board cities north and south and also with the Persian Gulf.

29. Afium-Kara-Hisar (black castle of opium) is a large town, and together with its manufactures and trade in opium grown near it, is one of the most wealthy towns of Anatolia. At a distance of 50 miles north-northeast is Kutahya, which stands in a mountainous region about 4,000 feet above sea-level. Its trade is chiefly in cotton, corn, fruits, wool, etc. It is the usual residence of the governor of Anatolia, and was the prison of Kossuth and his Hungarian compatriots after the war of 1849.

30. Scutari, on the Bosphorus opposite Constantinople, is built on several hills, and has both internally and externally a great resemblance to the capital, of which in fact it is a suburb. It has numerous mosques and imarets, a palace and extensive gardens belonging to the sultan, magnificent barracks, hospitals, etc., and is otherwise noted for its manufactures and commerce, being the rendezvous of caravans from Asia trading to Constantinople, and between it and Chalcedon. A short distance southward is the plain where the Turkish forces usually assemble for Asiatic campaigns.

31. Asia Minor was the seat of "the seven churches which are in Asia"—Ephesus, Smyrna, Pergamos, Thyatira, Sardis, Philadelphia, and Laodicea. These were all places of great note in apostolic times, though only some of them are so now, and that only in a modified sense. Ephesus was long the metropolitan see of Asia; its ruins lie two short days' journey southeast of Smyrna, and still include some magnificent Grecian and Roman remains. Smyrna, a city of Ionia, is situated upon the shores of the Ægean Sea, at the mouth of the Meles, 38 miles north of Ephesus. The modern city, called Isnir by the Turks, contains scarcely any traces of the ancient. Pergamos was an important city of the Greater Mysia, on the river Caicus, about 20 miles from the sea. The modern Pergamo is built on or near the site of Pergamos; it is a large place, and has some antique remains. Thyatira is completely obliterated, though many architectural fragments are strewn around. The modern Turkish town of Akhisar, built on or near its site, is a large place. Sardis was the once flourishing capital of ancient Lydia, situated at the foot of Mount Tmolus, in a fertile plain watered by the



RUINS OF EPHESUS.

golden-sanded Pactolus; it is now a heap of ruins. A miserable Turkish village called Sart partially preserves in its name, and entirely in its walls, relics of the splendor of ancient Sardis. Philadelphia stood about 25 miles southeast of Sardis, in the valley formed by the Kodus. Hard by its site is the Turkish Allah-Sehr. Laodicea was the capital of the Greater Phyrgia; its site, now deserted, was near the river Lycus, Asopus, and Caprus, tributaries of the Mæander. No trace of it remains.

32. Armenia and Kurdistan occupy the northeast portion of Turkey in Asia, and comprise the eyalets Erzeroum, Kars, Van, Bayazid, and Musch, covering in the aggregate an area of 49,096 square miles.

33. The plateau of which Armenia chiefly consists is mountainous and volcanic. The ridges, of which there are four principal, are generally parallel to each other, running, with deviations, east and west, and between them are broad valleys and plateaux, that of the Aras at Mount Ararat being 2,890 feet, and many others 5,000 to 8,000 feet above the sea-level. A few mountains rise above the line of perpetual snow, but this is not generally the case; and there are no passes but such as can be crossed in a single day. Silver, lead, iron, and copper are found in the mountains, and the last two have to some extent been wrought in modern times. Rock-salt is plentiful, and is exported in considerable quantities to Persia and elsewhere. Mineral waters abound, but little or nothing is known of their constituents.

34. Several important rivers take their rise in Turkish Armenia, namely, the Kur or Cyrus, and its tributary the Aras or Araxes, flowing east to the Caspian Sea; and the Akampsis or Tchoruk, flowing north to the Black Sea; and the Tigris and Euphrates, which flow into the Persian Gulf. There are also several minor tributary streams. The only considerable lake is that of Van, 70 miles in length and about 28 in breadth.

35. The climate is very severe, presenting quite a contrast to that of the warm regions of the lower Euphrates and to the mildness prevalent on the shores of the Black Sea. Winter, in Armenia, continues from October to May, spring and harvest a month each, and the change to summer is very rapid. The heat, especially in the valleys during summer, is great, and rain seldom falls. In Erivan (Russian Armenia), which is a degree of latitude south from Trebisond, the thermometer in winter falls 36° Fahr. lower than it does in the latter; and in summer it rises 24° Fahr. higher. On the plateau of Erzeroum the difference is still greater; indeed, in the town of Erzeroum the snow lies in the streets for eight months of the year. East and southeast winds in summer, westerly winds in spring, and northeast storm winds in winter are most prevalent. The climate is esteemed healthy.

36. The soil is generally productive, though in many places it would be quite barren were it not for the great care taken to irrigate it; to such an extent, indeed, is the system of irrigation carried on, that in summer many considerable streams are wholly absorbed. Wheat,

barley, tobacco, hemp, grapes, and cotton are raised; and, in some of the valleys, apricots, peaches, mulberries, and walnuts. From the nature of the country, the rearing of stock is carried on to a greater extent than agriculture. The horses are spirited, fleet, and fiery. Pines, birches, poplars, and beeches flourish, but, except in the northern parts, there are no thick forests.

37. The principal places in the several provinces are as follows:

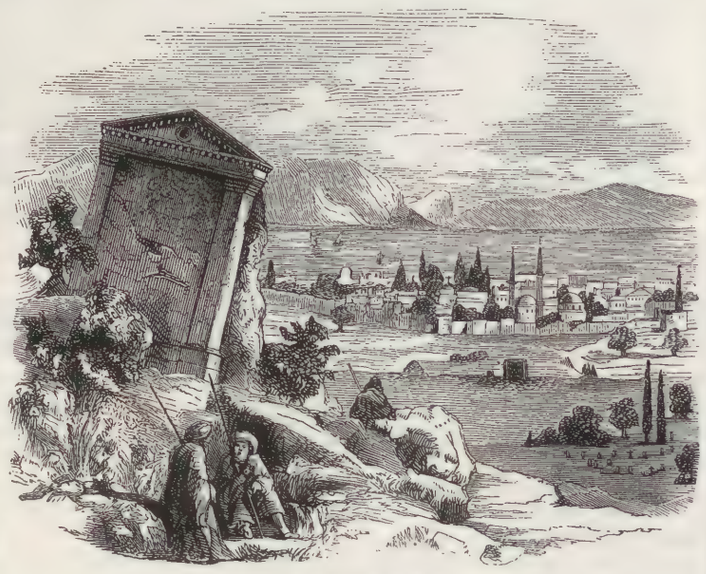
Eyalets.	*Capitals* and Principal Places.
Erzeroum	*Erzeroum;* Erzinyan; Hasan-Kaleh; Ipsera; Gumishkhana.
Kars	*Kars;* Olti; Artvin; Arduhan; Batoom.
Van	*Van;* Julamerik; Bitlis; Diz; Akhayansk; Vastan; Kalajeh.
Bayazid	*Bayazid;* Kunduk; Arnis; Arin.
Musch	*Musch* or Moosh; Gumgum; Inishair.

38. Erzeroum, the chief town, is built in a plain on the Kara-su, 6,000 feet above the sea-level, 120 miles southeast Trebisond. It is partly inclosed by a wall 30 feet high, and has an extensive citadel. The streets are narrow and filthy, and the houses mostly of wood or sun-dried brick. The principal buildings are the Armenian and Greek churches and schools, about 40 mosques, and numerous khans. Erzeroum has an extensive trade with all the adjacent countries, and is the chief halting-station for caravans going from Teheran to Mecca. The city was founded about 415, near the site of the ancient Arza, under the name of Theodosiopolis, and it was the bulwark of Armenia under the Byzantines, as it still is under the Turks, its position rendering it an important military station.

39. Kars, on the Arpa-chai, 105 miles northeast Erzeroum, is partly walled, and has a strong but somewhat ruined citadel. Otherwise it contains eight mosques, minarets, several small Armenian churches, and convents mostly in ruins. It is important in a military point of view as a frontier stronghold; but it was taken by the Russians toward the end of 1855, the Turkish garrison having been obliged to capitulate on account of the exhaustion of supplies.

40. Musch is situated on a fine plain north of the Niphates Mountains, 83 miles southeast Erzeroum, and is built around a conical hill, and has some large and well-supplied bazaars. It has considerable trade with Constantinople and Syria, and manufactures of coarse cotton cloth, etc. About three fifths are Mohammedan, and the remainder Armenian. Bayazid is a fortified town not far to the southwest of Mount Ararat, and about 150 miles east-southeast Erzeroum. It surrounds a hill crowned by a citadel, and has an arsenal, a palace, etc., but the town is filthy, miserable, and has been declining ever since the Russian conquest of Georgia. Its inhabitants are chiefly Kurds.

41. Van (Artemita), on the east shore of the lake of the same name, and 145 miles southeast of Erzeroum, stands inclosed by a double line of ramparts at the south face of an isolated rock crowned by its citadel. It is esteemed a very strong place. It is ill-built, but has several large Armenian churches, mosques, baths, caravansaries, etc.; bazaars abundantly supplied, and some massive and remarkable antiquities which have been attributed to Semiramis. About 500 looms are employed in manufacturing fabrics from cotton imported from Persia, and these goods, with rural produce, constitute its chief exports.



CITY AND LAKE OF VAN.

42. Batoum is a sea-port on the east shore of the Black Sea, four miles north of the mouth of the Tchoruk. It is a safe port, and capable of containing a large number of ships, but its site is extremely unhealthy. Bitlis is a large commercial town on the Bitlis, an affluent of the Tigris, and a few miles southwest of Lake Van. Two thirds of the inhabitants are Mohammedans, and the remainder Armenians.

43. Syria or Scham is a comparatively narrow tract of country facing on the Mediterranean. It is divided into the eyalets Aleppo, Damascus, Akka with Beyrout, Tripoli, and Jerusalem, and the country of the Druses and Maronites: these together cover an area of 53,224 square miles.

44. The coast has some low sandy tracts, but is in general, though not deeply indented, lofty and precipitous, rising, particularly in Mount Carmel, to the height of 3,000 feet. It has few good harbors, and is often lined with shelves, which make its navigation dangerous. The most remarkable feature of the interior is a mountain-chain, which, continued from the Sinai peninsula in the south, stretches over the whole length of the country, till it becomes linked with the Taurus in the north.



CEDARS OF LEBANON.

45. The southern part of this chain, where it enters Palestine, consists of two parallel ranges. The western range, lowering as it proceeds north, assumes the form of a plateau, which has an average height of about 2,500 feet in the vicinity of Jerusalem, but afterward sinking rapidly, has at the northern extremity of the plain of Esdraelon, near the foot of Mount Tabor, a height of rather less than 480 feet. At this point, however, it assumes a new elevation, and, taking the name of Lebanon or Libanus, attains in its culminating point the height of 9,600 feet. The eastern range forms a continuation of the great chain of western Arabia, pursues the same direction as the western range, and though it also rests on a plateau which, toward Damascus, has a height of above 2,000 feet, is in general of moderate elevation. On approaching Libanus it takes the name of Anti-Libanus, the only space between them being occupied by a longitudinal valley, known by the name of Cœlo-Syria. Notwithstanding its much lower average elevation, the culminating point of the whole chain occurs in Anti-Libanus, which in Jebel-el-Sheik, about 30 miles west of Damascus, attains a height of 12,000 feet.



SYRIAN COSTUMES.
1. Sheikh of Mount Lebanon. 2. Women of Nazareth 3. Man of Bethlehem.

46. This chain divides Syria into three regions—a western, consisting of a narrow belt of lowland, extending between the sea and the mountains, sometimes sandy, but generally fertile; a central, occupied by the principal mountains of the chain; and an eastern, consisting for the most part of a bare, arid, sandy plateau, occasionally relieved by a few oases.

47. The principal rivers are the Euphrates, confined to a part of the northeastern frontier; and the Jordan or Ghor, which, rising on the north of Jebel-el-Sheik, continues its course almost due south through a valley remarkable, particularly in its southern part, for its great depth beneath the level of the sea. In the course of the Jordan are the lakes of Merom and Tiberias, the latter justly celebrated as the scene of some of our Saviour's miracles; and at its mouth is the far larger lake of the Dead Sea, which also occupies a memorable place in Scripture history, and still attests, in the volcanic rocks lining its shores, and the mineral ingredients of its waters, the fearful catastrophe which overthrew and buried the Cities of the Plain.

48. The climate is salubrious among the mountains, but excessively hot, unhealthy, and often pestilential along the sea-shores. Much of the soil, more especially in the valleys of Lebanon, is remarkable for its fertility. Among its products are corn, cotton, fruit in almost endless variety, indigo, sugar-cane, grapes, mulberries, olives, and tobacco. Its forests also are extensive, and include among their trees, though now only to a limited extent, the famous Cedars of Lebanon. The chief domestic animals are camels, oxen, goats, sheep, mules, asses, and horses. Game is abundant; and the bees yield honey in such abundance, and of such quality, as to form an important branch of rural economy. The only minerals appear to be iron and coal.

49. The principal places on the several eyalets are as follows:

Eyalets.	*Capitals* and Chief Towns.
Haleb or Aleppo	*Aleppo;* Iskenderoon; Antaki (Antioch).
Damascus	*Damascus;* Tadmor (Palmyra).
Akka, with Beyrout	*Akka* or Acre; Tabariyeh (Tiberias); Sur (Tyre); Saida (Sidon); Beyrout; Baalbec
Tripoli	*Tripoli* (Tarablous); Tartous; Ladikiyeh (Laodicea).
Jerusalem	*Jerusalem;* Bethlehem; Joppa (Yafa or Jaffa).
Country of the Druses and Maronites.	

50. Aleppo or Haleb, in the north of Syria, on the Koikh, and 70 miles east of the Mediterranean, is one of the principal emporiums of the Ottoman Empire. In ancient times the city rose to importance, and on the destruction of Palmyra, became the great center of trade between Europe and the East. Iskenderoon (Scanderoon or Alexandretta) is a sea-port on the east coast of the Bay of Iskenderoon, 70 miles northwest Aleppo, of which it is the port, and has the best harbor on the Syrian coast.



ALEPPO.

51. Tripoli is a sea-port at the mouth of the Kadisha, 46 miles north-northeast Beyrout. It is one of the neatest built towns of Syria. The harbor is small, shallow, and frequently unsafe. Acre (Ptolemais) stands at the northeast side of a fine bay, latitude 32° 55′, and longitude 35° 5′. Its port is much frequented by French, Italian, and Austrian vessels. Tabariyeh (Tiberias), 30 miles east-southeast, on the Sea of Galilee, is a town of 4,000 inhabitants. Tyre, 28 miles northeast Acre (the cradle of commerce and the first city of Phœnicia), contained in the latter part of the eighteenth century scarcely a dozen huts, which sheltered a few fishermen. It afterward began to recover, and now forms a considerable town. Sidon, the mother city of Tyre, 23 miles north, is also a considerable place, though somewhat decayed. Beyrout is the port of Damascus and central Syria, and one of the most commercial cities of the East. Baalbec (Heliopolis), 50 miles northeast, is now an inconsiderable village.

52. Damascus (Sham-el-Keber) is situated on a fine plain at the east base of the Anti-

14,495,100 of Nature.

ASIA

SOUTH WESTERN SHEET.

SCALE OF STATUTE MILES.

0 50 100 200 300 400

200 Geographical or 230.53 Statute Miles to one Inch.

REFERENCE

Capitals ✱TEHERAN
of Provinces ◎ KONIEH
Principal Towns ○ Smyrna
Rail Roads

Entered according to Act of Congress in the Year 1856 by J.H. Colton & Co. in the Clerks Office of the District Court of the United States for the Southern District of New York

Libanus range, about 180 miles south-by-west of Aleppo. It is surrounded by a dilapidated wall six miles in circuit. The interior of the city by no means corresponds with the exquisite beauty of the environs. The streets are narrow, and have, many of them, a gloomy and



CITY OF DAMASCUS.

dilapidated appearance. Among the most noteworthy buildings are its bazaars, khans, and mosques. Damascus is the chief emporium of the trade between Europe and the East, and is also a place of extensive manufacturing industry, but the manufacture of Damascus blades, for which the city was once famous, no longer exists. Palmyra, the "Tadmor" of Scripture, 128 miles east-northeast Damascus, is a ruined city in an oasis of the Syrian Desert.

53. Jerusalem (Hierosolyma) is built near the center of a mountain region between the Mediterranean and the Dead Sea, 33 miles southeast Jaffa. The city is about two miles and a half in circuit, surrounded by stately walls, and entered by four gates. The streets are narrow, ill-paved, and dull, but the houses are in general well-built and of hewn stone. All the edifices possessing any interest, however, are of a religious character. Jaffa or Joppa, the port of Jerusalem, is situated on a fine plain on the shore of the Mediterranean, but as a station for vessels it is one of the worst on the coast.



MAP OF JERUSALEM.

54. Syria, at an early period, became part of the Assyrian Empire, and afterward passed to the Persians under Cyrus, and the Greeks under Alexander. It afterward became the center of the Seleucides, from whom it was conquered by the Romans, during whose domination Odenath and his celebrated queen Zenobia established a short-lived kingdom at Palmyra. On the division of the Roman Empire, Syria fell to the Eastern, but was taken by the Arabs in 636. It was governed by caliphs till 883, and then passed under various masters, till it was conquered by the Seljuk Turks in 1078. It was partly wrested from them by the Crusaders, who founded in it the kingdom of Jerusalem, which lasted till 1293, when it was taken by the Mamelukes, who united it with Egypt, and retained possession of it till 1517, when the Ottoman Turks added it to their empire. The most important events in the modern history of Syria are its conquest by Mehemet Ali in 1833, and its restoration to Turkey, in 1840, by the intervention of the great European powers.

55. Irak and Mesopotamia comprehend the eyalets Urfa, Diarbekr, Bagdad and Scherisu, Bassorah and Mosul; and occupy the southeastern portion of Turkey in Asia. Area, 165,749 square miles.

56. This geographical division of the Empire is watered by the Euphrates and Tigris, and extends from the table-land of Armenia and the lofty ridges of the Taurus on the north, to the Arabian Desert and Persian Gulf on the south, and stretches east and west between the Syrian Desert and the mountains of Kurdistan, etc., the latter dividing it from the table-land of Iran. It is distinguished by its structure, its configuration, and its natural products into three distinct zones.

57. The first of these zones or districts comprises the hilly and mountainous country commonly called Taurus, which is composed of many different chains. The mean elevation of the crest of the Taurus varies in different sections from about 2,900 to 5,650 feet. To the south of the main chain lies the plain of Diarbekr, 2,500 feet above the level of the sea, and separated from the mountain district by ranges of indurated chalk. The climate presents cold winters with much snow, and hot summers. The most remarkable feature, however, is the abundance of trees, shrubs, and plants in the northern, and their comparative scantiness in the southern districts. Among the useful and cultivated plants are the vine, fig, almond, and olive, wheat and barley, etc.

58. The second zone comprises the plains of Mesopotamia and the country to the east of the Tigris. The character of these plains varies with elevation and latitude, as well as with the quality of the soil, and from the presence or absence of moisture. The upland, which extends from Jezireh to Tel Sakhan, near Nisibin, and which has a mean elevation of 1,550 feet, is a stony wilderness, amid which there is little or no cultivation, and where, nevertheless, numerous flocks of sheep and herds of cattle obtain a scanty subsistence during a great part of the year. The great plains of northern Mesopotamia, from Urfa to Rakkah, and from Nisibin to El Hathar, and the Chaldæan plain east of Nineveh, present characters nearly similar—an almost uniform level, with a soil possessing good agricultural qualities, but barren from want of irrigation. The exceptions to this are when the plains are intersected by hills, or at spots at the heads of or on the banks of streams. Fertile districts of this kind are abundant; the plains of Urfa and Harran are bountifully watered. The climate is dry, and the changes of the temperature great and sudden. The cold increases from west to east; but in the plains of the Tigris, which are sheltered by the mountains of Kurdistan, the winters are temperate. The absence of trees on these plains is a phenomenon difficult to account for; willows, however, grow on the banks of the Euphrates, and the oriental plane rises to an enormous height—otherwise the vegetation consists of succulent and herbaceous biennials.

59. The alluvial plains of Babylonia, Chaldæa, and Susiana form the third district. In the northwest the plain has a slight but well-defined southerly inclination; in the central districts, undulates, and then subsides into mere marshes and lagoons. The soil of the northern part is pebbly, and this is succeeded lower down by continuous formations of clayey soil, covered with mold, dust, or sand, or the more tenacious clay of frequent inundations. There is scarcely any cultivation in all this region; flocks pasture in meadows of coarse grass, and the dusky encampment of the Arab is occasionally met with; but, except on the banks of the Euphrates, there are few remains of the date-groves, vineyards, and gardens which adorned the country in the days of Xenophon, and still less of the labor and population which must have made a garden of such a soil in ancient times.

60. The principal towns in the several eyalets are as follows:

Eyalets.	Capitals and Chief Towns
Urfa	*Urfa* (Edessa); Bir or Beerjik; Rakkah; Karkeseea; Arban.
Diarbekr	*Diarbekr* (Amida); Palu; Nerjki; Severek; Jezireh; Tilleh; Redwan.
Bagdad, etc.	*Bagdad;* Babylon (ruins); Samara; Hillah; Hit; Elkaim; Sinjar; Mardin.
Bassorah	*Bassorah;* Kornah; Arkah; Kantara.
Mosul	*Mosul;* Nimroud; Fashapoor; Masradiab.

61. Diarbekr is situated near the Tigris, in latitude 37° 55′, and longitude 39° 52′. It is inclosed by a vast wall of dark stone, and is generally well-built and has a strong citadel. It is the see of the Chaldæan patriarch, and the capital of the eyalet of the same name. Its manufactures, once very valuable, have materially declined, and at the present day consist chiefly of a few cotton and silk fabrics and copper utensils. Its population has also decreased from 200,000 to 40,000; and from its once having been a chief entrepôt of the commerce between Bagdad and Aleppo, its trade is now very limited.

62. Urfa, 40 miles east from the Euphrates, and on the small river Daisan, is a flourishing and handsome city, with extensive manufactures and a considerable commerce and transit trade between Syria and Mesopotamia. This town is supposed to have been the "Ur of the Chaldees."

63. Along the course of the Euphrates are—Bir, a town of about 8,000 inhabitants, chiefly Turks; the ruins of Salamia and Bilhah; El-Deir (Thapsacus), with about 6,000 inhabitants; Karkasia (Circesium); Annah, a town of 7,000 inhabitants; Hit, with about the same number, and in the neighborhood of which are numerous springs and streams of salt water and bitumen; Hillah, a large and well-built and walled town of 10,000 inhabitants, 460 miles above the Persian Gulf; and below Hillah are the towns—Diwaneyeh, Lambum, and Somawah, the last of which is celebrated for its cotton cloths, which are much esteemed throughout the East. Hillah is situated within the precincts of Babylon, and built with bricks dug from its ruins. Shapeless mounds are all that now remain of "the glory of the Chaldees' excellency."

64. Descending the Tigris from Diarbekr, the first place of importance is Mosul, a large, ancient, gloomy-looking town, and much decayed. It stands on the west bank of the river, in latitude 36° 20′, and longitude 43° 6′. It carries on a large trade, has some unimportant manufactures, and gives name to the well-known fabric "muslin" or mosuline. Exactly opposite, on the east side of the river, is the village of Nunia, occupying part of the site of ancient Nineveh, which, like Babylon, is now but a mound of brick and rubbish. Recent excavations have disclosed many interesting antiquities.

65. Bagdad stands on the Tigris, 190 miles from its mouth, and in latitude 33° 20′, and longitude 44° 24′. It is a large but decayed city, surrounded by an ancient embattled brick wall about seven miles in circuit. The city is built entirely of brick, but contains no buildings of elegance or importance. The larger portion stands on the left bank of the river, which is crossed by a bridge of boats 670 feet long. The desert comes up to its very walls. It has few manufactures, and its caravan trade is now very limited. This once celebrated commercial emporium, and the capital of the Empire of the Caliphs, at the present day does not contain more than 40,000 inhabitants. Bagdad was founded by Almanzor in 763, and continued to flourish under succeeding caliphs until sacked by Holagu, son of Genghis Khan, in 1258. It came finally into the possession of the Turks in 1638.

66. Below Bagdad are the ruins of two ancient cities on opposite banks of the Tigris—Seleucia and Ctesiphon. Seleucia, built by Seleucus Nicator, once contained 600,000 inhabitants, and engrossed all the commerce and wealth of Babylon, but time, violence, and inundation have leveled everything, and all that remains of a once magnificent city is the debris of its edifices. Ctesiphon, on the east side of the river, was built by the Parthians within three miles of Seleucia in order to dispeople and impoverish it. All that now remains of it is one stupendous fragment called "Tauk-Kisra," built of fine sun-dried brick, and measuring 300 feet along its front or eastern face. It is divided by a high semicircular arch (tauk) of 86 feet span, which runs to the height of 103 feet, and is supported by walls 16 feet thick. All around are fragments of brick-work and vast structures, encumbered with heaps of earth. Ctesiphon was sacked by the Arabs in 637, and the building of Bagdad finally reduced both these cities to insignificance. Kornah or Kurneh (Apamea) stands on a point of land formed by the confluence of the two great rivers. It is now an insignificant place; but extensive ruins attest its former importance. On the west bank of the Shat-el-Arab, 48 miles below Kurneh and 86 from the Persian Gulf, stands—



CITY OF BAGDAD.

67. Bassorah or Basrah, a large commercial city. Latitude 30° 30′, and longitude 47° 34′. It is inclosed by a brick wall about eight miles in circuit, and intersected by canals. The streets and houses are mean, and except the English factory, the governor's residence, and a few of the mosques, there are no good edifices. The bazaars are mean, but stocked with all kinds of goods, Bassorah being the great emporium of the Turkish Empire for Eastern produce.

[*Weights, Measures, and Moneys.*—The standards of Constantinople are official throughout the Empire; but there are numerous local denominations in general use.

Weights.—At Acre (Syria) the rottolo of cotton, tobacco, etc., = 2,280 26 grammes or 5.02764 lbs. avoirdupois, and for silk = 2,216.92 grammes or 4.88799 lbs. avoirdupois. At Damascus the rottolo = 1,900.22 grammes or 4.18926 lbs. avoirdupois; 5 = 1 besno, and 6 = 1 batman. At Bassorah the maund of 10 occas or 25 vakias = 12,927 grammes or 28.5 lbs. avoirdupois; 3 = 1 sofi. Gold and silver are weighed by the chequee of 100 miscals = 466.55 grammes or 7,201 grains Troy.

Measures.—Grain, etc., and all liquids are bought and sold by weight.

Moneys.—Generally the same as in European Turkey. At Bassorah money is reckoned in mamuds of 10 danims, each of 10 flouches; 110 mamuds = 15 rupees = 1 toman, and 100,000 rupees = 1 lac. The rupee = about 50 cents, and hence the mamud = $0.68181.]

ARABIA OR ARABISTAN.

1. Arabia is an extensive peninsula in the southwestern part of Asia, chiefly lying between the Red Sea and the Persian Gulf, and extending from the 12th to the 33d parallel of north latitude. Its northern boundary is indefinite: the Indian Ocean washes its southern coasts. The extreme length of the peninsula from Palmyra on the Syrian frontier to Aden on the Indian Ocean is nearly 1,500 miles, and its width on the average is probably 680 miles. Including the peninsula of Mount Sinai, between the gulfs of Suez and Akabah, the area of the whole is about 834,000 square miles.



ARAB SCENE.

2. Arabia, taken collectively, is an arid, sun-burned wilderness: the hills, naked rock; the plains, rough stones or drifting sand. In this dreary waste may be traced, here and there, particularly near the mountains in the southern half of the peninsula, some green spots which receive the benefit of the annual rains; and the wadies or valleys, descending from the rain-collecting heights, figure only as so many green lines more or less strongly marked in the dazzling sun-burned prospect. There are also some oases or productive spots in the interior, surrounded by deserts, and which seem to indicate that the waters of streams, lost in the sands higher up, are here again collected and brought toward the surface. The mountains exercising this beneficent influence on the land rise, as far as we have any knowledge of them, at no great distance from the sea-shore, and form, with their ridges, a kind of elevated frame, which incloses the greater part of the peninsula.

3. The sterility of Arabia is sufficiently proclaimed when it is stated that a country so vast has no considerable, and scarcely any permanent rivers. A few small streams, indeed, in Oman, as the Massora and Sib, are said to be constant; but these, supposing their permanence established, form after all but rare exceptions. Arabian rivers, in general, are either consumed in irrigation or absorbed by the sands before they reach the sea-shore. Hence the interior has occasional fertile and populous valleys, while the coast is comparatively barren and desolate.

4. The lakes, like the rivers, are of but short duration. After heavy rains pools are formed, which, being rapidly evaporated, leave the ground incrusted with salt. As to the wastes and oases of this country, Arabia is, collectively, a desert, and the cultivated tracts throughout are all so many oases, surrounded by sterile and irreclaimable wastes. The desert of Ahkaf (the waves of sand), however, is of a peculiar character, swallowing everything which falls on it, and is supposed by the natives to be the abode of demons. A recent traveler (the Baron Von Wrede) reached the confines of El-Ahkaf, north of Hadramaut, and throwing into the sand a weight with 60 fathoms of line attached to it, saw the whole disappear in five minutes.

5. The flora of Arabia seems to be made up of contributions from Africa, India, and Armenia. The sea-shore, where it is not absolutely barren, exhibits generally plantations of the date-palm, which thrives even where the ground is covered with incrustations of salt. On the southern coast the mango and cocoa-nut are occasionally met with. Farther inland grows the fig-tree, the tamarind, the almond, and the orange. The wild bushes are chiefly mimosæ, euphorbiaceæ, and the sidr or lotus nebka. With these grow lavender, wormwood, jasmine, and other scented plants. As the mountains are ascended, the vegetation assumes a more European character. Apricots, plums, pomegranates, and grapes are found at the height of 3,000 or 4,000 feet; and above these the sides of the mountains are covered with forests of juniper, less properly called cypress. The cotton-plant and the sugar-cane grow in the lowlands; the sumach or gum-Arabic, the aloe, and the cassia fistula prefer the hills; and the tree which yields the olibanum or frankincense abounds on the mountains.

6. Wild animals are few in number. A country so ill-provided with wood, bush, and pasture, and where the scanty waters are so closely beset by an active population, is necessarily unable to support herds of large animals. The ibex inhabits the rocky heights; the wild ass, and antelopes of moderate size, the plains. The jerboa and lizards are seen even in the midst of the bare sands. Apes, chiefly of the species called hamadryas, are numerous in the woods which clothe the sides of the mountains. The beasts of prey are panthers, ounces, and hyenas. In domestic animals, Arabia possesses advantages which may be ascribed, in some degree, to the great care and attention which the austere nature of the country makes absolutely indispensable for the support of any kind of livestock. The camels and dromedaries are famed for their speed and beauty, and Arabia possesses also the finest breeds of horses. These horses unite perfect symmetry of form with great spirit, but they are small. The ass is a handsome animal, nearly as large as a mule, with a sleek coat. As to horned cattle and sheep, southern Arabia now draws, and probably has always been in the habit of drawing, large and regular supplies from the Somauli coasts, near the eastern angle of Africa.

7. The Arabs are characterized by a light and active figure, oval face, regular and finely-turned features, and a forehead neatly formed, but somewhat narrow. Their look is bold, but often inclines to melancholy. They have ordinarily a dark-brown complexion. The race may be all divided into three classes, which rarely commingle or change places one with another, namely, the inhabitants of towns, the cultivators of the soil, and the Bedouins or people of the wilderness. These last are considered as the type of the nation. Their independence, their attachment to ancient habits, and their incapability of change, conduce to nourish in them a strong national spirit. The whole wealth of these wandering herdsmen consist in their camels and horses, their kine, sheep, and goats. They live indolently in tents made of a coarse kind of dark colored cloth, woven by their own women, drawn over poles fixed upright in the ground; and keep by one locality till the pasturage around is exhausted, and necessity compels them to change their position. They have no industry, and though in appearance all energy and fire, are incapable of patient exertion. Their only occupation, besides the care of their cattle, is pillage. The agricultural tribes inhabit villages, which are frequently inclosed within square walls, the houses abutting on the walls, while in the center is an open space for the herds and flocks. The population of Arabia is estimated at 12,000,000 souls.



BEDOUIN ARABS—WOMEN GRINDING CORN.

8. As success in field labor depends wholly on irrigation, the Arabs have learned from necessity to attain this object by very elaborate and ingenious means. They conduct the water through tunnels or subterranean canals, so as to prevent its being dissipated in its transit by the thirsty superficial soil and the sun's powerful rays. These have, in Oman, an extent of many miles, with a height which allows a man to walk upright in them. Yet, notwithstanding the care bestowed by the Arabs on their date plantations, to which, as well as to their horses and camels, they are ardently attached, the total produce seems unequal to the demands of the population. While western Arabia receives provisions, not only sheep and cattle, but millet and other grain also, from the Somauli coast, southern Arabia imports

annually, notwithstanding the vaunted ferility of its numerous wadies, several thousand tons of dates from the Persian Gulf. In Yemen, however, the cultivation of coffee and of khat (a kind of tea-plant) is found more remunerative than that of the necessaries of life. The former of these thrives only in a warm and humid atmosphere, and screened from the sun's rays; hence, being planted only under the shade of trees, it is confined to the well-wooded part of Yemen.

9. Manufacturing industry can hardly be said to exist in Arabia. Handicraft trades are there few in number. The armorers are the only smiths whose work exhibits skill. The town of Tass, in Yemen, is famous for its pottery, because it is the only place in Arabia where the art of glazing earthenware is understood and practiced. Camelots are woven in Nejd; silk and woolen stuffs are made in Oman, and cotton cloth is said to be manufactured in Hadramaut. The cotton-plant, as well as saffron, orchil, and other dye-stuffs, is certainly cultivated in the interior. But the Arab looms are unable to meet the demands of the home trade. The Bedouin procures his supplies of cloth, oil, and other luxuries in exchange for civet, musk, ostrich feathers, and other trifles, but chiefly for his horses and camels. The trade in coffee, khat, almonds, balsam, senna, and gum enriches a few proprietors; but, generally speaking, the chief mercantile wealth of Arabia is, and always has been, derived from the carrying trade.

10. Although the carrying trade between India and the shores of the Mediterranean Sea has long since sunk into comparative insignificance, yet enough remains to show the importance and the foundation of the monopoly of it, once enjoyed by the Arabs. While navigation was in its infancy, that patient and enduring animal the camel—so justly entitled "the ship of the desert"—offered the most convenient and economical mode of conveying goods from the Persian Gulf and southern Arabia to Egypt and Phœnicia, whence they were distributed through the West. It seems certain that the trade routes of the Arabs in the earliest ages—in the flourishing days of Tyre and Sidon—nearly coincide with those followed in the days of the Caliphs, when the caravans started from Bahrein for Bagdad, and thence crossed the Syrian deserts to Aleppo, Damascus, or Egypt; or from Dhofar and the ports of Hadramaut, they passed through Yemen on their way north. The establishment of the Mohammedan religion had the effect of reviving this truly Arab branch of industry; for the Hadji or pilgrimage to Mecca, which was enjoined on all true believers, drew crowds annually to the sacred shrine from all parts of the Mohammedan world. This conflux of strangers required large supplies, and gave great activity to trade; but besides the pilgrim-caravans to Mecca being deemed sacred, experienced favor and protection in all Mohammedan countries; and hence, the Hadji merchants taking advantage of the security thus enjoyed, always united commercial speculation with the work of piety.

11. The prevailing form of government among the Arabs is patriarchal, the chief power being vested in a sheikh, that is, an old man or elder, whose authority resembles that of the head of a family, and rests more on the sentiments and habits of the community than on organized means of control. The title of sheikh has, indeed, generally become hereditary, though not by so strict a rule as to prevent the frequent occurrence of contests for the succession. The power of the Arab chieftain depends on his ability to sway the passions of the multitude by the ready use of tongue and sword. If through tyranny or incapacity he forfeits his popularity, he is ordinarily deposed by some ambitious kinsman, to whom the people willingly transfer their homage. In Sanaa the chief bears the spiritual title of Imam, as did formerly the ruler of Muscat also; but in the latter case the title of Imam has been superseded by that of Sultan. The Arabs are Mohammedans, and have spread their religion more widely than any other existing form, chiefly in Asia and Africa. The Koran is not only the exposition of their faith, but is also their rule of life and code of laws. Their language is cognate with the Hebrew, and they have a voluminous literature.

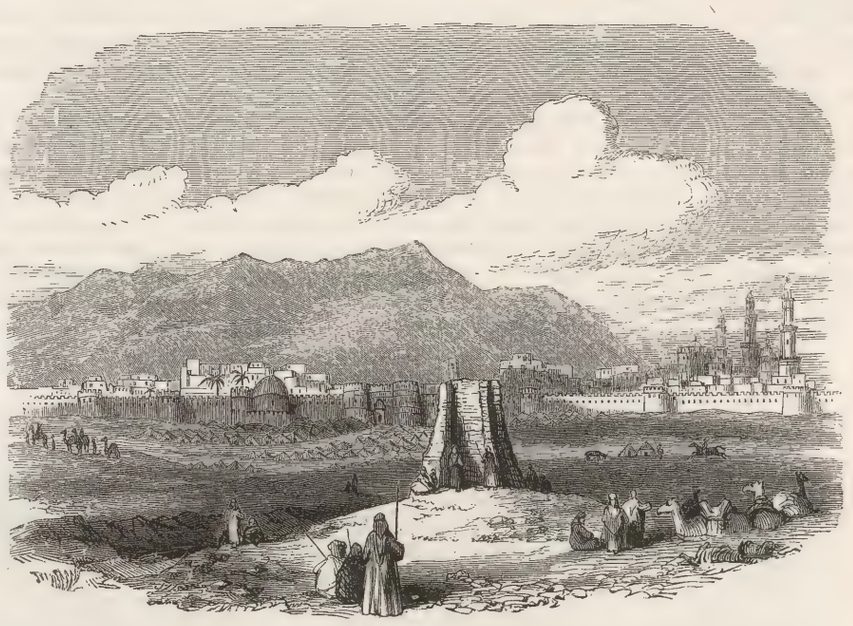
12. There is much discrepancy in the accounts of native writers respecting the territorial divisions of peninsular Arabia; and the limits of those divisions which they concur in establishing appear to have fluctuated much. The first of the divisions met with in proceeding down the Red Sea is Hejaz, which includes the sacred cities Mecca and Medina. Next comes Yemen, occupying the southwest part of the peninsula. Appertaining to Yemen is Aden, now a free port in the hands of the British. Next to Yemen, east, and separated from it by a desert five days' journey in width, is Hadramaut. Beyond it, along the coast, lies Mahrah; but across this tract, and apparently included at one time in Hadramaut, extends the principality of Shejer or Shehr, at the eastern termination of which, near the coast, is the populous district of Dhofar, which has occasionally figured as an independent state. At the eastern angle of the peninsula is situated Oman, the chief port of which, Muscat, now carries on a considerable trade with British India. On the southern shores of the Persian Gulf is Bahrein, from which, toward the head of the gulf, extends the maritime district of Hajar, while at a short distance southwest, in the interior, lies the fertile district of El-Ahsa. The interior of Arabia, from Hejaz and Yemen across to the vicinity of the Persian Gulf, is comprised by Arab geographers under the single name of Nejd. Toward the northwest and north are the deserts of Sinai, and those of Scham, Jezireh, and Irak (Syria, Mesopotamia, and Babylon).

13. Mecca (Mekka or Bekka), latitude 21° 36′ north, longitude 40° 20′ east, is situate in the Holy Land of Arabia, in a barren valley, surrounded by mountains, two days' journey from Jiddah on the Red Sea. It is celebrated as the birth-place of Mohammed and the cradle of the Mussulman traditions. Mecca may be styled a handsome town; its streets are generally broader than those of Eastern cities; the houses are lofty and built of stone, and the numerous windows which face the streets give them a lively aspect. The city is open on every side. No trees or gardens cheer the eye; and except four or five large houses belonging to the sheriff, two medresseh or colleges, and the great mosque, with some buildings and schools attached to it, Mecca has no public buildings to boast of. Neither khans, nor palaces, nor mosques, which adorn other towns of the East, are here to be seen. The streets are unpaved, filled with dust in the dry season and with mud during the rains.

14. But Mecca possesses the Beitullah (house of God), the grand center of the Mohammedan world, which forms an oblong square, nearly in the middle of the town, 250 paces long by 200 broad, and surrounded by a covered colonnade. The center is occupied by the Kaaba or holy house, an oblong massive structure of rough stone, 18 paces in length, 14 in breadth, and from 35 to 40 feet in height, and entirely rebuilt, as it now stands, in A. D. 1627, after it had been nearly reduced to ruins by a torrent. At the northeast corner is a black stone, which appears to be a piece of lava or black basalt, fixed in the wall, and is devoutly kissed by every pilgrim. The four sides of the Kaaba are covered with a black silk cloth which hangs down and leaves the roof bare. This curtain or vail, called Kesoua, is renewed annually at the time of the Hadji, being brought from Cairo, where it is wrought at the expense of the Ottoman Sultan. Within the square is also the well Zemzem, and several other holy spots.

15. Jiddah, the port of Mecca, 55 miles west on the Red Sea, is a well-built town, on a slope which rises gradually from the sea, surrounded with a wall 3,000 paces in circuit, but in the midst of a desert. The people are almost exclusively foreigners, and are engaged in commerce. The streets are airy, the houses lofty, and well-built of coral. About 70 miles east of Mecca is Tayf or Taief, a small town in the midst of a sandy plain surrounded by hills, which is supplied with water from two copious wells, and celebrated all over Arabia for its beautiful gardens.

16. Medina, about 250 miles north-by-west of Mecca, situate in a low plain close to the mountains which run parallel with the Red Sea, is a small town surrounded by a substantial wall, and has always been considered as the principal fortress of the Hejaz. It was formerly called Yathreb, and receives its present name of Medinat-al-nebi (Prophet's-town) from the circumstance of its having become the residence of Mohammed after his flight from Mecca, and of his burial. Without the town are extensive suburbs. The great object of attraction



EL MEDINA.

is the mosque which contains the tomb of Mohammed; it is smaller than the Beitullah of Mecca, but built on a similar plan, forming an open square, surrounded with colonnades, and having a small building in the center. Near the southeast corner stands the famous tombs wherein are deposited the remains of Mohammed and the first two caliphs, Abubekr and Omar. In the neighborhood of the city are Mount Ohud, where the Prophet suffered a bloody defeat from the Meccawys; and the wells of Beder, where he gained his first victory over them. Yambo, a small town on the Red Sea, with a capacious harbor, the best on the coast, is considered the port of Medina, from which it is distant about 100 miles southwest. It is situate on a low sandy spot, which is utterly destitute of vegetation.

17. In that portion of the Hejaz which corresponds with the ancient Arabia Petræa are several places of remarkable interest. Petra, the ancient capital of the Nabatheans, is now deserted, but its site still exhibits many splendid remains of the architectural taste and the wealth of its inhabitants. It is situate in a small valley, called Wady-Mousa, surrounded with precipices, about 64 miles from the head of the Gulf of Akaba. A little to the northwest is Mount Hor, where Aaron was buried, and where there is now a mosque containing his tomb. Mount Sinai and Mount Horeb or Jebel Katerin and Jebel Mousa are situate in the southern part of the triangular peninsula formed by the forks or branches of the Red Sea, in a gloomy wilderness consisting of long ranges of rugged rocks intersected by deep valleys. On the west coast of the peninsula is the small sea-port town of Tor. Akaba, a Turkish castle at the head of the gulf to which it gives its name, is supposed to be near the site of the ancient Elath and Ezion-geber, from which the fleets of Solomon sailed to Ophir. It communicates directly with the Dead Sea by the long, narrow valley El-Arabah. To the northeast of Petra are Karek or Carrack, and Shobek or Montreal, places distinguished in the wars of the crusades; Karek is still a considerable town. Between Akaba and Suez is the desert El-Ty, or, as the Arabs call it, Tya-beni-Israel, the desert of the Israelites, a desolate tract covered with black stones, which Burckhardt describes as the most dreary and barren wilderness he had ever seen.

18. Saana, the capital of Saana, one of the most powerful states of Arabia, stands in the middle of a beautiful valley 4,000 feet above the level of the sea, and is a well-built town, surrounded with brick walls and towers. Its inhabitants carry on a great trade, chiefly in coffee, and some of its merchants are reputed to be very wealthy. It is the seat of a dynasty of Imams, which dates from the year 1626, when the Turks were expelled from Yemen. The Imam has two large palaces, with extensive gardens walled round and fortified. The city also contains 20 mosques, many of which are splendid, with richly gilt domes.

19. Mocha or Mokka, 160 miles southwest of Saana, a decayed town with 3,000 houses,

on the flat sandy shore of the Red Sea, with an open roadstead, was formerly the principal sea-port of Yemen, and the place from which the coffee was exported. Beit-el-fakih, 83 miles north of Mocha, a large unwalled town, is the frontier town of the Egyptian or Turkish government, and has a citadel of some strength. It is the emporium of all the coffee from the interior, and the hottest town in the Tehama. Loheia, on the Red Sea, is situate in a poor country, with a shallow harbor and bad water, but exports a good deal of coffee. Hodeidah is a town of considerable size on a sandy bay of the Red Sea, where ships are well protected. The neighboring country is flat and sandy, and chiefly produces dates; but from the mountains, which are visible from the coast, at the distance of two days' journey, grapes, coffee, limes, and other vegetable productions, are brought to the market. Gomfodah, about 120 miles south of Jidda, is a port on the Red Sea.



MOCHA, FROM THE NORTH.

20. Aden, on the coast of the Indian Ocean, east from Bab-el-mandeb, a great emporium of commerce, has an excellent harbor. It is built on a small flat, probably the bottom of a crater, surrounded by precipitous rocks, on the east side of a peninsula formed by two fine bays, in the one of which, opposite the town, is the fortified island of Sirah, which commands the approach. The peninsula consists chiefly of a mass of volcanic rocks of the most rugged and fantastic forms, extending five miles east and west and three broad, and having at its most southern point Ras Sanailah or Cape Aden, in latitude 12° 45′ 10″ north, longitude 45° 9′ east. The highest part of the peninsula is Jebel Shamshan, a rocky promontory of limestone,



ADEN, FROM THE NORTH.

rising 1,776 feet above the level of the sea. The peninsula bears a strong resemblance to the rock of Gibraltar, and could easily be rendered as impregnable; but its rocky masses are higher and more peaked in their outline. It is connected with the mainland by a neck of flat, sandy ground only a few feet high. But both the peninsula and the mainland present the most desolate aspect; not a tree or a shrub is to be seen, and the heat is intolerable; the place, however, is healthy. In 1839 the town and the peninsula on which it stands were purchased by the East India Company, to be made a depôt for coals and a calling station for the mail steamers between India and Suez; and the result is that the population which had been reduced to about 1,000 had, in 1851, increased to not less than 50,000 souls. The neighboring country abounds with honey and wax of the finest quality.

21. Makullah or Makallah, 300 miles east of Aden, in latitude 14° 31′ north, and longitude 48° 13′ east, a sea-port town on a low projecting point under the face of a precipitous hill, is the principal trading-place on the south coast of Arabia. Many of the houses are lofty and substantial. Sihun or Shibam, the capital of Hadramaut, is situate 160 miles north-by-west from Makullah.



MUSCAT.

22. Muskat, Muscat, or Maskat, a large town, is situate at the extremity of a small cove, in latitude 23° 38′ north, longitude 58° 42′ east, in the gorge of an extensive pass, which widens as it advances into the interior. The town presents a fine appearance from the sea, but consists of narrow, crowded streets, filthy bazaars, and wretched huts, intermingled with low and paltry houses. The palace, however, of the sultan, the governor's house, and some others, are good and substantial. Muskat is important not only as the emporium of a very considerable trade with Arabia, Persia, and India, but also as the principal sea-port of Oman, and the capital of a state whose sultan, usually but erroneously styled the Imam of Muskat, claims the sovereignty of all the coast of Africa from Cape Delgado to Cape Guardafui; of the southern coast of Arabia from Aden to Ras-al-had, and thence northward as far as Bussorah; and of all the coasts and islands in the Persian Gulf, and the oceanic coasts of Persia as far as Sinde.

23. El-Ahsa, Ras-al-Khyma, or Khaima (Tent Cape), not far to the west of Ras Mussendom, is a flourishing town, the residence of the sheikh of the Joasmee pirates, and the station of their fleet, which consisted at one time of 63 large vessels and 800 barques, manned by 19,000 men. All their ships, building-yards, and forts were destroyed by the British forces from India in 1809, and a second time in 1819, but the town is again as flourishing as ever. Its harbor is the best on the coast. El-Khatif, a fortified town situate on a bay, is the most commercial place in this part of Arabia. Fouf, the chief town of the country of El-Ahsa, consists of a fort, surrounded by an open village, fields, and plantations of date-trees. Grane or Koueit is a commercial town at the northwest corner of the Persian Gulf.

24. In Nedj the only place worth mentioning is Derrayeh or Deraiah, the capital of the ephemeral empire of the Wahabees, situate at the entrance of a deep and narrow valley, which is inclosed by arid mountains. It contained 28 mosques, 30 colleges, and 2,500 houses; but in 1819 it was quite deserted, and we have no information of its present condition.

25. The Ishmaelites appear to have always retained the habits of Bedouins; they were wild Arabs; the possession of Mecca and the Kaaba was their sole boast, and they made no figure in history till the time of Mohammed. The sons of Yoktan, on the other hand, in southern Arabia, advanced in civilization, engaged in commerce, and had a regal form of government. Thus we find it stated, characteristically enough, that Arabia (northern) and the princes of Kedar offered lambs, and rams, and goats—pastoral produce; while the merchants of Sheba (the Sabæans) dealt in spices, precious stones, and gold.

26. Of the early history of the Sabæans nothing now remains but a few obscure traditions. The greatness of the nation appears to have been closely interwoven with the construction and maintenance of the great dam at Marab, in the interior of Yemen, which collected the waters of several mountain-streams, and formed a reservoir whence the neighboring country was irrigated. The construction of this great work dated from a period long antecedent to that of authentic history. Some ascribe it to Balkis, the queen of Sheba who visited Solomon. The bursting of this dam, which probably took place in A. D. 170, constitutes one of the most remarkable epochs in Arab history. It was connected with a dispersion of the tribes of Yemen, many of whom going north, and associating with the Ishmaelites, eventually acquired the ascendency among these people.

27. In the fourth century of our era, a king of Yemen embraced Judaism and persecuted the Christians within his dominions, putting several thousands of them to the sword. This awakened the hostility of the Abyssinians (the Axumites), and at length, in A. D. 530, an Ethiopian army crossed the Red Sea into Yemen, and put an end to the Himyarite dynasty. The Ethiopians remained masters of Yemen till A. D. 601, when Khosru Parviz sent a Persian army to aid in expelling them.

28. It was during this occupation of Yemen by the Ethiopians that Abreha marched against Mecca with a Christian army and a troop of elephants, but was induced to retire by the intercession of the Jews of Yathreb. This event gave rise to the Arab era of the Elephant, and is the more remarkable because it took place in the same year (571) which gave birth to Mohammed, whose fiery genius was, no doubt, worked upon by the contest of religious doctrines which agitated Arabia in that age.

29. In tracing the chief epochs of Arabian history, we must not omit to mention that the era used by the Arabs and Mohammedans in general is reckoned from the Prophet's departure from Mecca, July 16, 622. With the diffusion of the new faith a new destiny seemed opened to the Arabs. The continued success of their arms has no parallel in history. Within the course of a few generations, Arab dynasties were established from central Asia and the frontiers of India, in Samarkand, Balkh, and Cabool, to the shores of the Atlantic, in Morocco and Spain. In the flourishing days of the Caliphs (successors) the Arab merchant visited China, the interior of Africa, the shores of the Baltic, and northern Siberia. In truth, Arab commerce embraced at one time nearly the whole of the Old World. But this wide-spread superiority was in its nature transient. The power of the Caliphs was extinguished, after many a struggle, by that of the Ottomans, and in trade the Arabs were gradually and completely supplanted by Western nations. The Arabian peninsula derived but little advantage from the historic splendor of the Arab name. Bagdad, Cairo, and Granada became centers of a civilization which exercised no influence on the desert tenants.

30. The most remarkable event in the history of Arabia since the age of the Prophet is probably that which closed the career of the Wahabees, a sect of religious reformers founded by the Sheikh Mohammed Abd-el-Wahab, whose life extended from 1696 to 1791. Toward the end of the last century his followers in Nedj threatened not only Bagdad but Mecca, and thus provoked the hostility of the pasha of Egypt. The enthusiasm of the Bedouins, roused by the appearance of an Egyptian army in Nedj, made the contest for some time doubtful, and the Turks were defeated in three successive campaigns. But perseverance and artillery gained the victory at last. In 1818, Derrayeh, the capital of the Wahabee chief, in the heart of the peninsula, was razed to the ground, and the spirit of the fierce sectaries completely quelled. Since that event Hejaz and a part of Yemen have remained under the rule of the pasha of Egypt.

[*Weights, Measures, and Moneys.*—These are extremely diverse both in denomination and value; each state indeed, has its own. The following are the principal known to commerce:

WEIGHTS.—The rottolo (Turkish Arabia) = 504.56 grammes or 1.11291 lb. avoirdupois; 200 rottoli = 100 maunds

= 10 farzils = 1 bahar of Mecca, and 2 bahars of Mecca = 1 bahar of Mocha. The rottolo (Beit-el-Fakih) = 462.46 grammes or 1.01951 lb. avoirdupois; 800 rottoli = 1 bahar. The cucha (Muscat) = 165 grammes or 0.36393 lb. avoirdupois; 24 = 1 maund.

MEASURES.—The covid (Turkish Arabia) = 457.19 millimetres or 0.50001 yard, and the guz = 634.39 millimetres or 0.69358 yard. The covid (Muscat) = 460 millimetres or 0.50307 yard. The gudda (Turkish Arabia) of 8 noosfieahs or 128 vakias = 7.3649 litres or 0.20901 bushel or 1.94573 gallon. The tomaud of 4 kellas = 94.4 litres or 2.67890 bushels. Both liquids and solids are ordinarily sold by weight.

MONEYS.—Turkish money is used throughout the Red Sea provinces. At Muscat the mohammadee of 20 gazees is the money of account; 11 mohammadees = 1 Spanish dollar. At Aden, British and Indian denominations and values are in common use.]

TURKESTAN OR INDEPENDENT TARTARY.

1. TURKESTAN is a wide region of central Asia lying between latitudes 35° 20′ and 51° 30′ north, and longitudes 50° 24′ and 76° 40′ east. It extends, north and south, between the possessions of Russia in Asia and Afghanistan and Persia, a distance of 1,200 or 1,300 miles, and east and west, between the Caspian Sea and Chinese Tartary, more than 1,000 miles. The area is estimated to be 792,000 square miles.

2. The general characteristics of Turkestan are exemplified in its sandy wastes, in its numerous lakes, and in its great want of running water. Its only cultivable portions are found in the hilly regions of the east and south, and in the oases which here and there appear in the midst of the prevailing desert. Its lakes are generally small—some salt, some bitter, and some fresh. The Sea of Aral, the largest of Asiatic lakes, covers more than 20,000 square miles, but it is shallow and of no service to navigation, nor has it an outlet, although the recipient of several large streams. The chief rivers are the Amoo or Oxus and the Syr-Daria or Jaxartes, both of which flow to the Aral and empty through alluvial deltas. Many of the smaller streams are lost in the sands or terminate in small lakes. The climate is one of extremes—very hot in summer and extremely cold in winter. Little rain falls, and hence the soil, not naturally unfertile, is dried up and vegetation impeded or destroyed. It has no forests, and except in the lower ranges of the mountains little wood of any kind.

3. The great bulk of the people are of Turcoman origin, intermixed or in neighborhood with the native tribes. The former are the Uzbeks and the latter the Tadjiks. But there are also Persians, Afghans, and other races in less numbers; and the northern steppes are inhabited by the Kirghiz. In all, the population numbers about 8,000,000 souls. They are divided into a vast number of tribes—partly nomadic and pastoral, partly agricultural, and partly urban or settled. Their governments are patriarchal and despotic; and in religion the prevailing faith is the Mohammedan. Many are still pagans. The Turkish language is generally spoken, but in the cities and towns the Persian is also used. Education is not wanting, and at one period Bokhara and Samarkand were noted seats of civilization and literature.

4. The dominant states of Turkestan are Bokhara, Koondooz, Khokand, and Khiva, all south of 45° north latitude. North of that parallel is the land of the Kirghiz. The minor states which once existed are either tributary to or have become districts of the dominant states, and hence in the brief sketch here permitted, remark will be restricted solely to those whose prominence demands attention.

5. BOKHARA or Uzbekistan is bounded north by the Kirghiz steppe and Khokand, east by Koondooz, south by Afghanistan, and west by Khiva. Area 196,000 square miles.

6. Bokhara, toward the east and south, is a mountain region—toward the east, including the valleys forming the west slopes of the great Asiatic plateau, and toward the south, leaning on the Hindoo-Koosh and the north escarpment of the Persian highlands. All the rest of the country is uniformly low and flat, and in its characteristics pertaining to the dry steppes and sandy wastes of the Caspian and Aral seas.

7. The valleys of the Oxus and Jaxartes, the only large streams of the country, are described as being very beautiful, and as an earthly paradise in comparison with the sandy wastes which on every side surround them. North of the Oxus, and from the mountains west to Bokhara, the country is occupied by a succession of low, round ridges of oolite, limestone, and gravel, covered with a scanty verdure, and between them are hardened plains of argillaceous clay, forming excellent natural roads. On these occur sand-hills of no great extent, but sufficient to absorb the rivulets flowing toward the Amoo. West of Bokhara and south of the Amoo, however, the country is covered with these hills or rather mounds of loose sand. In the valleys formed by these sand-hills deposits of salt and saline rivulets occur. The only lake of importance is Denghis or Kara-kool, about 50 miles south-southwest Bokhara; it is deep, brackish, and about 10 miles long. Gold in considerable quantities is found among the sands of the Amoo.

8. Bokhara is at present inhabited by no fewer than twelve different races, viz., Uzbeks, Tadjiks, Turcomans, Arabs, Persians, Mongols or Kalmuks, Kirghiz, Kara-Kalpaks, Jews, Afghans, Lesghis, and Gipsies. The most numerous by far are the Uzbeks, who were the last conquerors of the country. Most of them lead a wandering life, and a few only inhabit the large towns. The Tadjiks consider themselves the aboriginies of the country, and are a remarkably industrious race. The Turcomans, Kirghiz, and Kara-Kalpaks are all of Turkish descent; the former inhabit the deserts west of the Amoo, and the two latter, few in number, live principally in the east in the neighborhood of Kurshee. The other nations settled in Bokhara at different periods, and have no particular distinctive character. The Persian language is that usually spoken in the towns, the Turkish by the nomadic tribes. The total population is variously estimated at 1,500,000 (Burnes), 2,000,000 (Khanikoff), and 2,478,000 (Myendorff).

9. The industry of the Bokharians is chiefly pastoral and agricultural; but they have also several not unimportant manufactures, and their trade with the neighboring states is far from being insignificant. The most considerable manufactures are those of silk and cotton, and of a kind of cloth in which both are combined. Articles of steel, gold, and silver are also made, and of good quality, as sabers, knives, rings, and various jewelry. The art of dyeing is well understood; and the morocco leather produced is of a superior quality. An active trade is carried on with Russia and all Asia, the capital being the center of the great caravan routes, east and west, and the depôt for goods destined for the opposite markets.

10. The government of Bokhara is monarchical, and the emir or khan an absolute sovereign. He is the most powerful of the princes of Turkestan, and maintains a large standing army. In religion the Bokharians are Soonite Mohammedans. Though there are many educational establishments, both in the capital and throughout the country, the greater portion of the population remains uninstructed.

11. Bokhara contains nineteen towns of some note. The principal of these are Bokhara, Samarkand, Balkh, Kara-kool, and Kurshee. Bokhara, the capital, is situated south of the Samarkand River, and is surrounded by a mud wall about eight miles in circuit, embattled and entered by eleven gates. The streets are extremely narrow and the houses small. The principal public edifice is the palace, on an elevation in the center of the city, and surrounded by a brick wall 70 feet high. There are altogether 360 mosques in the city. Of colleges there are 103, and in these are about 10,000 students. The city contains 28 caravansaries and 16 principal baths. The buildings are generally of sun-dried brick, and those of the wealthy are tastefully adorned. A canal shaded by mulberry-trees intersects the city, but in summer is dry for several months. Bazaars are numerous, each being appropriated to a single branch of business, and the trade of the city is immense. The vicinity is densely planted with trees.

12. Samarkand, 100 miles east Bokhara, is a quadrangular town surrounded by a substantial wall, entered by eight gates, and defended by a citadel which is situated on the west side and continued beyond the walls so as to form a suburb. But a small portion of the inclosure is built over, the greater area being occupied by ruins and gardens; and notwithstanding the ancient celebrity of the city, particularly in the time of Timur, it is now insignificant, Bokhara having carried off most of its trade. The principal objects of interest are the palace, the several mosques, and the medresses or colleges. The latter, though in a ruinous state, exhibit many traces of former splendor.

13. Balkh, 260 miles south Bokhara, on the Adirsiah or Bidalkh River, was long one of the most flourishing cities of the East and the emporium of the trade between India and China and the west of Asia. The remains of the ancient city extend over a circuit of 20 miles, and consist chiefly of fallen mosques, colleges, tombs, etc. The modern town is merely a large village surrounded by mud walls, and inhabited by Afghans and Arabs. Kara-kool is a large town on the Zer-Afshan, 38 miles south-southwest from Bokhara. Kurshee, 108 miles southeast, is situated in the midst of a fertile oasis about 20 miles broad; and around it are innumerable gardens and orchards.

14. Bokhara in part corresponds to the Bactria of the ancients. After the destruction of the Greek Bactrian Empire it formed a powerful kingdom, conquered in 705 by the Arabs. In 1232 it fell into the hands of Genghis Khan, whose descendants were dispossessed by Timur in 1303. In 1505 the Uzbeks became masters of the country and the throne.

15. KOONDOOZ is bounded west and north by Bokhara, east by Chinese Turkestan, and south by Afghanistan. Area about 46,000 square miles.

16. The greater part of the surface is mountainous; but there are many fertile tracts which yield abundant crops of grain, while the marshy grounds, which are very extensive, produce rice. Fruits also are plentiful, as are generally all the necessaries of subsistence. But the climate is very insalubrious, being excessively hot in summer and very cold in winter. Its insalubrity, however, is no doubt owing in great measure to its marshes. Budukshan, Hisar, Koolab, Durwaz, Shoongan, etc., formerly independent states, are now subject to the khan of Koondooz. They are all situated to the east and southeast of Koondooz proper, and chiefly among the mountains in those directions. The inhabitants are supposed to be aboriginals intermixed with Persians, etc., and speak the Persian language. The whole are Mohammedan. Agriculture and pasturing are the principal occupations, but there is an active trade carried on with Yarkand and Bokhara.

17. Koondooz, the capital, is built on the left bank of the Bunghee, near its junction with the Goree. Latitude 36° 48′, and longitude 69° 21′. It is a wretched place, consisting of 500 or 600 mud hovels; and gardens and corn-fields alternate in its suburbs and extend even into the town. Budukshan or Fyzabad, near the Koocha River, was once a place of great importance and celebrated for its ruby mines. Scarcely a vestige of it remains. Hisar is a town on the Amoo.

18. KHOKAND is an extensive country to the northeast of Bokhara, and contains an area of 120,000 square miles. The surface in the east and south is very mountainous, but flattens down toward the west, where extensive tracts of fertile soil occur, chiefly along the Syr or Jihon, the ancient Jaxartes. This river traverses the khanate first east to west and then north, and receives almost all its drainage. Its northern boundary is the Tchoui.

19. The greater part of the country is pastoral rather than agricultural, and cattle constitute its principal wealth. But heavy crops of grain are raised, and fruit is very abundant. Considerable attention is paid to the culture of cotton and to the rearing of silkworms. Manufactures consist principally of silk and cotton goods, and a large trade is carried on by means of caravans with the Russian frontier towns, and with Chinese Turkestan, Bokhara, etc.

20. The principal towns are Khokand, Khojend, Turkestan, etc. Khokand (Ferghana) is situated on both sides of the Syr, in latitude 41° 30′, and longitude 69° 12′. It stands open, and has no fortifications except a wall which surrounds the palace of the khan. The streets

are narrow and unpaved, and the houses of mud. It contains 50 mosques and three bazaars. The manufactures are chiefly silk and cotton tissues; and the trade in cattle and silk is considerable. Both within and without the town numerous ancient monuments exist, and the environs are covered with luxuriant gardens. Khojend is built on the left bank of the Syr, 90 miles southwest Khokand. It stands on elevated ground, and is surrounded by a decayed wall and ditches. Coarse cotton goods are manufactured, and a trade is carried on with Russia. Turkestan is a town 220 miles north-northeast Khokand. Other towns are Ush on the Upper Syr, and Tachkend, Tunkat, and Otrar, north of Khojend, on the same river.

21. Khiva, in its largest extent, and including all the territories tributary to the khan, stretches north to the north slope of the plateau of Ust-Urt and the river Kouwen, east to Bokhara, south to Afghanistan and Persia, and west to the east shores of the Caspian Sea. But the extensive tracts lying within these limits consist for the most part of deserts thinly inhabited or altogether uninhabitable and very little known; and hence the name Khiva, properly so called, is usually confined to a much more limited territory, forming what has been called the cultivable oasis of Khiva. The whole area of the Khiva dominions is at least 180,000: of the oasis not more than 20,000 square miles.

22. Almost the whole of the surface is composed of a low alluvial tract, and traversed through all its length, from southeast to northwest, by the Amoo. The soil is naturally very fertile, but owing to the great atmospheric dryness soon becomes stiff and hard, and hence requires continued irrigation, for which purposes a complete network of canals intersects the surface, conducting water from the Amoo and securing the most luxuriant crops of wheat, maize, rice, barley, and legumes. Cotton and madder are also generally cultivated; the vine thrives well, and all the ordinary fruits are abundant. The ground being generally arable is seldom occupied as pasture.

23. Manufactures are very unimportant. The only articles of any consequence are earthenware and bricks; and some cotton and mixed goods are woven. Trade is almost wholly confined to the immediate wants of the people and those of the surrounding nomads. There is also a small trade carried on with Khiva and Bokhara.

24. The government is, in the strongest sense of the word, an unmitigated despotism. The greater part of the inhabitants are Tadjiks and Uzbeks, in nearly equal numbers. After these are Persians, of whom two thirds are slaves; Kara-Kalpaks, Jamschids, and Turcomans. The number of Kirghiz families is only about six hundred. In all, the population numbers about 100,000 families.

25. The principal towns are Khiva and Ourghenj. Khiva is built on an alluvial flat 50 miles west of the Amoo, and is surrounded by a mud wall 20 feet high pierced by 12 gates. The whole space thus inclosed forms an irregular circuit of four miles, but a considerable part is occupied by gardens and fields. Within this is another walled inclosure, containing the government buildings, etc. Among the public buildings are the khan's two palaces, 17 mosques, 22 medresses or schools, several castles belonging to the principal officers of the state, a merchant house, caravansary, and bazaar. Ourghenj is a considerable town, 60 miles northeast Khiva, and about 10 miles west of the Amoo. In the south, near the Persian line, is Merve, a ruined town, once the capital of the Seljuk dynasty, and said to have been built by Alexander the Great. The country or land of Merve, along the valley of the Dura-i-Sarwan, is rich and fertile, and was once the seat of an industrious population.

26. Turcomania, westward of Khiva to the Caspian, is a desert inhabited by scattered tribes of Turcomans, and has no towns of the least importance. The inhabitants along the coast are chiefly fishermen.

27. The Kirghiz Steppe is an extensive country occupying the northern part of Turkestan. It is partly independent and partly comprised in the Russian governments of Orenburg and Omsk, and stretches east and west from the Caspian Sea and Ural River to the frontier of Songaria. The independent portion has an area of about 260,000 square miles.

28. The surface is traversed by many mountain chains; but chiefly consists of barren plains abounding in salt and bitter lakes, some upward of 100 miles in length, and into these the principal rivers pour their waters. The climate is remarkable for variability; and destructive hurricanes are frequent.

29. The population is almost wholly nomadic, and rude in the extreme. Their principal occupation is the rearing of sheep, goats, horses, and camels. Some land on river banks, however, is roughly tilled for millet, rye, and barley, especially in the south; and seals and sturgeon are taken in the lakes. Some domestic weaving and manufactures of hair-cloth, soap, leather, and ironware are also carried on; but this region may be considered as pre-eminently the head-quarters of barbarism in Asia, nearly all manufactured goods and necessaries being derived from the adjacent countries for cattle, hides, horn, and wool.

30. The Kirghiz are of the Mongol race, and separated into the so-called Great, Middle, and Little Hordes; and these are again subdivided into numerous tribes, each having its own khan or chief. Their religion is a compound of Islamism and idolatry. No towns exist in their territory, and the apparent remains of any such or of temples are certainly the vestiges of a former and forgotten race much more advanced in civilization than the present occupants.

31. Kafiristan (land of the infidels), on the southern slope of the Hindoo-Koosh, is sometimes counted as a portion of Turkestan. It comprises an area of about 7,000 square miles, and is traversed by affluents of the Cabool River, and its narrow but fertile valleys produce an abundance of fruit, with some wheat, millet, etc., and feed large herds of cattle, sheep, and goats. The Kafirs are a remarkable race, resembling Caucasians in their persons and in many of their habits. They are rude and primitive, and exhibit perpetual enmity to the Mohammedans, by whom their country has been repeatedly invaded but never conquered. They are skillful workers in metals and wood, and are distinguished from the surrounding tribes by drinking wine, sitting on raised seats, etc., and their language is distinct from that of the Hindoos, Afghans, and other Asiatic nations. Their principal village is Caundaish.

[*Weights, Measures, and Moneys.*—The following are those of Khiva:
Weights.—The batman = 19.6565 kilogrammes or 43.34 lbs. avoirdupois or about 48 lbs. Russian.
Measures.—Corn and liquids are sold everywhere by weight.
Moneys.—The tilla of 80 karapuls is the money of account; 1 tilla = 4 silver roubles Russian.]

IRANISTAN OR PERSIA.

1. Persia lies between latitudes 25° 40′ and 39° 50′ north, and longitudes 44° 20′ and 61° 35′ east; and is bounded on the north by Transcaucasian Russia, the Caspian Sea, and Independent Tartary, on the east by Afghanistan and Beloochistan, on the south by the Indian Ocean, the Strait of Ormuz, and the Persian Gulf, separating Persia from Arabia, and on the west by the eastern provinces of Turkey in Asia. The greatest length, northwest and southeast, is 1,150 miles, and the greatest breadth, northeast and southwest, about 820 miles. The area is estimated at 526,812 square miles.



ENTRANCE TO THE PERSIAN GULF.

2. Persia belongs to the vast and elevated table-land which, commencing in the west, on the eastern frontiers of Asiatic Turkey, stretches east without interruption into Afghanistan, and thence to the borders of India. The western part of this table-land forms the far larger portion of the Persian dominions. To the east, where it is only politically separated from Afghanistan, it does not possess any natural boundaries; but has its limits in other directions well defined by lofty mountain ranges, which descend, with more or less rapidity, on the north toward the Caspian, on the west toward the plains of the Tigris and Euphrates, and on the south toward the Persian Gulf.

3. Considering the extent of Persia, its rivers are both few in number and insignificant. Not one of them is of any navigable importance, except the Euphrates, and even it can not well be called a Persian river, as it only waters a small portion of the southwestern frontier. Its important tributary, the Kerah, however, has its whole course in Persia. The Karoon, rising to the west of the Kerah, pursues a course nearly parallel to it, and, after receiving several considerable affluents, falls into the northwestern extremity of the Persian Gulf, which, from that point east, though extending for several hundred miles, and forming the only basin for the southern drainage of Persia, does not receive a single stream deserving of notice.

4. Throughout the central plateau the total absence of running water is still more apparent. From the southern slopes of the mountain ranges which rise from its northern edge, much water, partly the produce of perpetual snow, necessarily descends in numerous streams, which soon reach the borders of parched and sandy deserts, and are immediately absorbed. The northern slopes are so near the basin of the Caspian, to which they all belong, that the water which they supply, though often in such excess as to inundate the plains below, has too short a course to allow it to accumulate into rivers. The principal exception is furnished by the Sefeid-Rood or White River, which, rising in the mountains of Kurdistan, has found or worn for itself a channel generally several hundred, and sometimes 1,000 feet below the general level of the table-land, in which the first part of its course is performed, then bursts its way across the mountains of Massula into a long valley interposed between two of its ranges, and finally worked its way to the Caspian, across the Elbruz, at the celebrated Roodbar pass, after a course of about 350 miles.

5. Almost all the fresh-water lakes which Persia possesses are situated in the province of Mazanderan; they are numerous, though individually of limited extent. The salt lakes, on the contrary, are few in number, but remarkable for their magnitude. The principal are Bakhtegan or Niriz, in the east of the province of Fars; and Shahee or Ooroomiah, in the west of the province of Azerbijan. The latter, in particular, is 80 miles long by about 25 miles broad. The water is much salter than that of the ocean, and, though generally shallow, is safely navigated by vessels of considerable size.

6. The most celebrated of the mineral products of Persia is the turquoise, the most valuable mines of which, producing gems of surpassing beauty, and in considerable quantities, are in the vicinity of Nishapoor, to the west of Meshed. Among the metals, iron, argentiferous lead, copper, and antimony are abundant. Rock-salt may be obtained in unlimited quantities

in almost every quarter, and sulphur is dug almost solid from the crumbling cone of Mount Demavend. Naphtha is found in many places; a celebrated gum or bitumen, called mumea, is collected in Fars; and not only is marble of the finest quality quarried, but coal also is said to have been discovered in Azerbijan.

7. The extremes of heat and cold are most sensibly felt on the central plateau, where the winter is as rigorous as the summer is hot. The dryness of the atmosphere, however, makes the air generally pure and the sky cloudless. The shores of the Persian Gulf are scorched up in summer by a burning heat, and become so unhealthy that all the inhabitants who have the means abandon them and retire to the adjacent mountains. On the south side of the northern mountain ranges, snow falls early in November. In such situations, as at Teheran, ice is seen up to the middle of March; cold winds from the north prevail in April, and even during summer great and sudden changes of temperature are not uncommon. On the north side of the mountains, in the plains of Ghilan and Mazanderan, the climate is like that of a tropical region, in which a dry and a rainy season regularly alternate, and vegetation has a luxuriance not often met with in much lower latitudes.

8. The general barrenness of the interior of Persia, particularly in its eastern and southern regions, has already been referred to. The long belt of sandy shores which line the Persian Gulf is nearly as barren as the desert table-land, but is often interspersed with plantations of date-trees.. Among the mountains of Khuzistan, Bakhtiyari, and Laristan, forests of oak and other trees are not uncommon, though in general they are stunted in their growth, and degenerate into a low jungle. The only true forest-land of Persia is the north side of the lofty ranges which overlook the Caspian. There all the mountain sides are covered with dense and magnificent woods of oak, beech, elm, and walnut, intermingled with box-trees, cypresses, and cedars. Along the slopes extensive open glades often occur, where the ground becomes covered with a rich herbage, on which numerous herds of cattle, chiefly for the dairy, are reared. Lower down, though still at some thousand feet above sea-level, wheat and barley are extensively cultivated. In the level and rich plains below, vegetation is remarkably luxuriant.

9. The more remarkable wild animals are lions seen in Farsistan, and a few other places, leopards, including the chetah, used for hunting; tiger-cats, lynxes, bears, wild boars, hyenas, wolves, jackals, porcupines, argali or mountain sheep, and mountain goats. Birds in numerous flocks are found only in particular spots. Among others are pheasants, frequenting the plains on the southeast corner of the Caspian; pelicans and bustards along the sandy shores, and often far in the interior of the deserts; blackbirds, thrushes, and other well-known songsters, but more especially the bulbul or Eastern nightingale. Among destructive insects the locust is noted for the fearful ravages which it often commits. Fish abound only in the Caspian, and on the shores of the Persian Gulf. At the mouths of the streams which fall into the former, valuable sturgeon fisheries are carried on, chiefly by Russia. The rivers contain few fish; and Ooroomiah, the largest of the lakes, is wholly destitute of them.

10. For administrative purposes, Persia is divided into large provinces; but the limits of these are frequently varying, and do not always comprise the territories of the nomadic tribes.

Modern Names.		Ancient Names.	Chief Towns.
Azerbijan		Media Atropatene	Tabriz.
Irak-Ajemi	Irak-Ajemi.	Media Magna	Teheran.
Ardelan	Irak-Ajemi.	Elymais	Sennah.
Luristan	Irak-Ajemi.	Syro-Media	—.
Khuzistan		Susiana	Shuster.
Fars or Farsistan		Persia	Shiraz.
Laristan		Mesambria	Lar.

Modern Names.		Ancient Names.	Chief Towns.
Kerman		Carmania	Kerman.
Ghilan		Country of Gelæ	Reshd.
Mazanderan		" of Japyri	Balfroosh.
Astrabad	Khorassan.	Hyrcania	Astrabad.
Khorassan.	Khorassan.	Aria	Nishapoor.
Yezd	Khorassan.	Artacene	Yezd.

The population of the country can only be estimated: according to some it amounts to 8,000,000, and others say 12,000,000. Mr. Frazer estimated the fixed population at 7,000,000, and the nomads at 2,500,000.

11. The people of Persia are divided into two classes, the fixed and the wandering, or the Sheherees and Eilauts or Iliyats. The former are a mixed race of Turks, Tartars, Arabians, Armenians, and Georgians, ingrafted on the stock of the ancient Persians, and their general language is a mixture of Arabic with the ancient Persian. These inhabit the cities, and are a fine race—tall, and in general strong and active, and in general intelligent, polite, and sociable. The cultivators of the soil appear to be in easy circumstances, and their houses comfortable and neat, and well supplied with the necessaries of life.

12. The character of the Eilauts or Iliyats is very different from that of the settled inhabitants. They are sincere, hospitable, and brave, but rude, violent, and rapacious; and are generally of Turkish or Arabian origin, and consider the Sheherees as a degenerate caste. They are divided into tribes, and while some inhabit villages, others live during the whole year in tents, in winter keeping to the plains, and in summer seeking pasturage in the mountains. Most of the tribes, however, are so much dispersed that they have lost that union which alone could render them formidable. Their wealth consists of flocks and herds, and they breed camels and horses for sale. In their small communities they are governed by "reissefids" or elders, the only hereditary nobility in Persia.

13. "Speaking generally of the Persians," says Sir John Malcolm, "we may describe them as a handsome, active, and robust race of men; of lively imagination, quick apprehension, and agreeable and prepossessing manners. As a nation they may be termed brave, but their vices are still more prominent than their virtues."

14. The religion of the Persians is the Mohammedan, but the people of the several provinces profess it in various forms. Jews are met with in all the great towns; Armenians and Nestorians are also to be found, and a few Sabæans or star-worshipers. It has been conjectured that there are between 250,000 and 300,000 professed Suffees or free-thinkers. The clergy consist of several orders, the highest of which is that of mushteheds, of whom there are seldom more than three or four. Next in rank is the Sheikh-ul-Islam, who is the supreme judge of the written law. Besides these there are in every city, and connected with all seminaries of learning, a crowd of mollahs, who, like the French abbés of old, live by their wits, and have little of the priestly character but the name, and are generally a licentious multitude. The only remains of the ancient fire-worshipers or followers of Zoroaster, called Guebres or Infidels by the Moslems, reside principally at Yezd, Kerman, Shiraz, Ispahan, and Kashan, but they are very few in number.

15. The Persians received their arts and sciences from Arabia, and still exhibit all the characteristics of their origin. Modern science is to them as yet a dead letter; and although every mosque has its colleges, and schools are thickly distributed over the whole country, nothing approaching to the character of a liberal education is open to the people generally. Great progress has, however, been made in this respect during the last 60 years; and since the commencement of the present century Persian literature has been decidedly on the advance, and a spirit of intellectual refinement is beginning to influence society. With the exception of the lower peasantry and paupers, indeed, there is now scarcely a mechanic or laborer who does not send his children to school. The higher branches of education are taught at the universities, which are well spoken of by all as efficient. Ispahan contains the largest and most important university. There is one also at Shiraz, and a third at Meshed.

16. The government of Persia, like that of most Eastern countries, is, in principle at least, an absolute despotism. The Shah is regarded as the vicegerent of the Prophet, and as such is entitled to implicit obedience. The two principal ministers of state are the grand vizier or Vizier Azem, and the lord high treasurer or Ameen-a-Doulah. The former superintends everything connected with foreign relations, and in the absence of the sovereign commands the armies; while the latter, who is subordinate to the other, superintends the internal arrangements, the collection of the revenues, etc. The whole executive government is in the hands of these two functionaries, whose authority, so long as they continue in power, is as absolute as that of their master: but their greatness being built on the favor of a despot, is of the most untenable kind, and they are very frequently degraded from their positions.

17. The Mohammedan law, both civil and criminal, is founded on the precepts of the Koran and the oral commentaries and sayings of the Prophet's immediate successors. This is called the "Sherrah" or written law, and is the rule in all regular courts where persons of the ecclesiastical order such as mushteheds preside. But there is also the "Urf" or customary law administered by secular magistrates, having the king as their head. It is more arbitrary, and the judgments of the king and his lieutenants are more summary than those of the other court, and enforced with greater rigor. But there is appeal to the superior functionaries, and the power of life and death rests ultimately with the sovereign, who seldom delegates it except to princes of the blood-royal or to governors of remote provinces.

18. The system of civil government is simple. Each province or important district of a province, including some large city, has a "beglerbeg" or governor, usually a prince of the blood or nobleman of high rank, who appoints his "hakims" or lieutenants over the districts and subdivisions; and each village has its "kelkhoda" or magistrate, generally one of the elders or more respectable inhabitants, who is the medium by which communication is kept up with the central government. There are also governors of cities and towns, and each "muhuleh" or parish has its head, who is in general chosen by the people.

19. The revenue of the Shah has been variously estimated, but does not probably amount to more than $10,000,000 annually. It is principally derived from taxes on lands and farms, capitation taxes, duties on imports and exports, tributes paid by the nomadic tribes, etc. Besides the sum above named, other large sums, which are not accounted for, are collected and appropriated by the provincial governors to their own aggrandizement.

20. The army of Persia is small, and consists chiefly of irregular troops taken from the nomadic tribes; and besides the regular and irregular troops, the king has a sort of body-guard, named "gholams" or slaves, who are Georgian or Circassian captives, intermingled with the sons of the nobility. This body amounts to three or four thousand. They are well mounted and armed, and generally carry a shield on their shoulders. The situation is one of honor as well as contingent emolument. The whole amount of the Persian army has been as high as 100,000 men, with twice the number of camp-followers.

21. In the low lands and the southern plains the sugar-cane and orange come to perfection; the pomegranate grows wild, the cotton-plant and mulberry are extensively cultivated, large tracts are occupied by the vine, and orchards, loaded with exquisite fruits—figs, apricots, peaches, plums, cherries, apples, etc.—occur in every quarter. Even the swampy shores of the Caspian are covered with a tall growth of saline plants and canes available for building, and many other domestic purposes. In these low plains the only grain under extensive and regular culture is rice, and the principal auxiliary crops are cotton, indigo, sugar, madder, and tobacco. Another rice district, of large extent, occurs in Azerbijan, where large rice-fields, producing rich crops, occupy the greater part of the low flats which surround Lake Ooroomiah. Irrigation is well understood and extensively practiced, and on lands apparently of no great fertility good returns are by this means obtained.

22. In the more pastoral districts, and more especially on the fertile slopes and plains at the foot of the northern side of the Elbruz chain, where luxuriant meadows are often seen, considerable attention is paid to the dairy. The stock, however, is generally of an inferior description, though black cattle of great size and beauty, distinguished by the Indian hump, are not uncommon in Mazanderan. Sheep and goats are much more numerous; the former, chiefly of the large-tailed variety, furnish the far greater part of the animal food which is used, and no inconsiderable portion of the clothing, the wool being not only extensively spun and woven, but often allowed to remain on the skins, which are formed at once into cloaks and jackets. The latter, particularly in the province of Kerman, yield a wool little inferior to that of Cashmere. The other domestic animals are asses, generally of a large and superior description; mules, remarkably strong, hardy, and sure-footed, and used more than any other animal for transport; horses, much improved by crossing with those of Arabia, and famous for strength, speed, and beauty; and camels.

23. The manufactures of Persia are more numerous than important, though in a few articles they continue to retain some of the celebrity which they acquired in early times. Among them may be mentioned various kinds of silk goods, as taffetas, velvets, and brocades, made extensively at Ispahan, Kashan, Astrabad, Yezd, and other places, not only for home consumption, but export; carpets and felts in Khorassan, and many of the central districts of Irak-Ajemi; Arabian cloaks and woolen stuffs, made in Khuzistan, and in large demand in the country, as well as Arabia; shawls, in imitation of those of Cashmere, made of the fine wool of the goats of Kerman; the fire-arms of Kermanshah; the swords, daggers, and other cutlery of Ispahan, Shiraz, and Meshed; the copperware of Kashan, the gold brocades of Ispahan.

24. The internal trade is wholly carried on by caravans. The principal articles imported from the East are muslins, leather, lambs' skins, stuffs of camels' hair, shawls, nankeen, china, glass, hardware, amber, coral, precious stones, saffron, indigo, spices, etc. The exports

to the East are velvets, silk and cotton stuffs, etc., from Ispahan and Yezd; articles in gold and silver, bronze lamps, copperware, etc., from Kashan; mats, lacquered ware, ivory ornaments, dates, lemons, and tobacco from Shiraz, and shawls and some other articles from Kerman. The Caspian and the Persian Gulf furnish many important items. The traffic of the former, carried on chiefly at the ports of Enzella, Balfroosh, and Astrabad, is almost entirely monopolized by Russian subjects; that of the latter, formerly carried on chiefly at the port of Gombroon, but now much more at that of Bussorah, employs a considerable number of vessels, owned for the most part by Armenian, Arab, and Indian traders. By this latter channel western nations import, to some extent, broadcloths and other woolens, cotton goods, shawls, jewelry, arms, cutlery, watches, earthen and glass ware, metals, etc.; receiving chiefly in return silk, gall-nuts, madder, and other dyes.

25. Teheran, the capital, is situated in latitude 35° 42′ north, and longitude 51° 21′ east, and distant south from the Caspian about 70 miles. It is about five miles in circuit, and inclosed by an earthen wall flanked with towers, a glacis, and dry trench. Externally its appearance is picturesque; its mosques, colleges, and caravansaries in good repair, and it is well furnished with shops and bazaars, and some large palaces of the nobility; but its dwellings are mostly of earth, and the streets mean and wretchedly paved. In summer it is exceedingly unhealthy. The citadel is extensive, and comprises, besides the royal harem, a magnificent grand saloon, the public offices, numerous baths, gardens, etc. Teheran has manufactures of carpets and hardware. Its vicinity is fertile and covered with valleys, and 20 miles north are extensive ruins.

26. Ispahan, the ancient capital, 200 miles south of Teheran, formerly a very large and splendid city, is now almost in ruins. It stands on a plain 4,140 feet above the sea, on the banks of the Zendarood, and was formerly surrounded by a mud wall 24 miles in circuit. Nothing can exceed the beauty of the surrounding country, and the first view of the city is still imposing. A nearer view, however, dispels the illusion, though much still remains of



JULFA BRIDGE, ISPAHAN.

wealth, if not of splendor. On the south side of the river are extensive suburbs. Ispahan is at present the chief seat of Persian manufacture; its artisans are esteemed the best in the country, and its manufactures comprise all kinds of woolen fabrics, gold and silver wares, paper, fire-arms, sword-blades, glass, earthenware, etc. Tabriz or Tabreez is situated on a fine plain 5,000 feet above the sea, on a river flowing into Lake Ooroomiah, and around an extensive forest country. It is inclosed by a brick wall three and a half miles in circuit and entered by seven gates. outside of which are large suburbs and beautiful gardens. The town is miserably built, and except its citadel and the splendid ruins of a mosque, it has no edifice worthy of notice; but its bazaars and caravansaries are extensive, and it is an important entrepôt of the trade between Persia, India, Russia, Constantinople, and the Black Sea. It is also the seat of some silk manufactures. Ooroomiah, 12 miles west of the lake, is a fortified city, and is reputed to have been the birth-place of Zoroaster, the founder of the ancient Magian religion.

27. Hamadan, the ancient Ecbatana, is a large and celebrated city, but is meanly built, and now partly in ruins. Some carpet and silk weaving are carried on, and the city has a large trade in leather, and is the entrepôt for the commerce between Bagdad and the capital. Kermanshah occupies two or three small hills at the western extremity of a broad plain near the right bank of the Kerah, 280 miles west-southwest of Teheran. It is surrounded by an earth wall three miles in circuit, and entered by five gates. The routes from Bagdad, Shuster in the desert, Ispahan by way of Hamadan and Suliemaneeyeh, all meeting here, make it the entrepôt of a considerable traffic.

28. Shuster, on the Karun, 150 miles from the sea, stands on a small hill crowned by a citadel, and on the land side it is inclosed by a brick wall, outside of which the Ab-i-Gargar canal, constructed by Shahpoor I., separates it from its suburb, and establishes a navigable communication with the river about 20 miles distant. To within five miles of the city the Karun itself is well adapted for steam navigation. The city possesses many elegant buildings, and the houses are mostly built of stone. In 1832 it was nearly depopulated by the plague, and in 1840 was much damaged by an inundation. Kashan, 92 miles north of Ispahan, on the route to Teheran, is a large and one of the most flourishing towns of the Kingdom. It has extensive manufactures, chiefly of silk stuffs, and an active trade in agricultural produce.

29. Reshd, between two small rivers 16 miles southeast of its port Enzella, on the Caspian, though occupying a very unhealthy site, is stated to be a well-built and flourishing town. It imports large quantities of Russian goods, and exports silks, fruits, etc. Balfroosh, on the Bahbul, 12 miles from the Caspian, is built in the midst of a forest, large, straggling, and interspersed with gardens. The streets, broad and straight, are unpaved, the houses mostly of brick, bazaars and caravansaries numerous, and there are from 20 to 30 Mohammedan colleges. Balfroosh has a large general trade, and communicates with its port on the Caspian by a good road. Astrabad is situated at the foot of the Elbruz range and on a small stream which falls into Astrabad Bay in the southeast part of the Caspian, 20 miles below. A great part of the town is in ruins. None of the buildings are worthy of particular notice. The manufactures are chiefly confined to a few silk and cotton stuffs, and though the site seems well fitted to make it the key of commerce between the East and the Caspian, the trade is not large.

30. Meshed or Mushed, a walled city of the province Khorassan, stands on a fertile plain in the northeast part of the country, latitude 36° 18′ north, and longitude 59° 25′ east. It contains the superb mausoleum of the Imam Reza, the magnificence of which, with its silver gates, jeweled doors, rails once of solid gold, is scarcely equaled in Persia. Otherwise it is a place noted for its manufactures of velvets, etc., and it maintains an active trade with Bokhara, Kandahar, Herat, etc. Nishapoor, 40 miles west-southwest of Meshed, and in one of the finest valleys of Khorassan, is inclosed by a rampart and trench about two miles in circuit. It is partly in ruins, but is still important, and has a special trade in turquoises obtained from mines about 38 miles to the northwest. Iron and salt are also products of its district.

31. Yezd is a large and flourishing city near the east foot of a mountain range in the Persian desert, latitude 32° 10′ north, and longitude 56° 8′ east. Its walls, exclusive of the citadel, are separately fortified, and surrounded by a deep trench. Its bazaars are spacious, and it has flourishing manufactures of velvets and other silk fabrics, cotton and woolen goods, arms, and loaf-sugar. Among the population are many Parsees or Guebres (fire-worshipers), this being nearly the only place in Persia which this relic of an almost extinct sect inhabits.

32. Bushire is the principal entrepôt of commerce on the Persian Gulf; latitude 28° 48′, and longitude 50° 52′. Its population consists chiefly of Persians, Arabs, and Armenians. On the land side it is protected by a wall with round towers, and on the other side inclosed by the sea, which on the north forms a harbor lined by wharves. Being built of white stone, and furnished with hollow turrets for ventilation, it has externally a handsome appearance, but its streets are narrow and unpaved, and good houses few in number. Its public buildings comprise only a few inferior mosques, the palace, a depôt of the East India Company, etc. Vessels of 300 tons lie in a roadstead six miles from the city. Bushire, however, has a large trade with British India and the ports of the Persian Gulf, etc.

33. Shiraz, in a valley famous for its gardens and fertility, 4,500 feet above the sea, and 120 miles east-northeast Bushire, is a walled town, and though meanly built has many splendid public edifices. Shiraz has manufactures of silk and woolen stuffs, swords, earthenware, etc., but is best known for a wine having a high reputation throughout Persia. Its commerce is extensive, and salt from adjacent lakes is forwarded on mules to most of the inland cities.

34. Lar, the capital of Laristan, and formerly of an Arabian kingdom, stands on an extensive plain, 180 miles southeast Shiraz. It is the seat of some considerable manufactures of fire-arms, gunpowder, and cotton fabrics. Kerman stands in a plain commanded by two hill-forts, and has a citadel and various fine buildings. It was formerly very flourishing, and its inhabitants still manufacture shawls, carpets, matchlocks, etc. Gombroon, a sea-port town of Persia (but latterly forming a part of the Muskat dominions), is situated on the Persian Gulf, near its mouth. It was formerly a place of considerable trade.

35. Few nations began at an earlier period to appear on the great stage of the world, and few have continued so long to perform a prominent part upon it. According to the description of Persian geographers, when their country was in its greatest glory, its territory comprehended four seas—the Caspian Sea, the Black Sea, the Red Sea, and the Persian Gulf; and six great rivers—the Euphrates, Tigris, Araxes, Phasis, Oxus, and Indus.

36. Passing over a series of fabulous dynasties, we arrive at that of the Achemenides, which commenced about 720 B. C., and furnishes the first records which can be considered authentic. Shortly after this period Persia appears to have been merely a province of the Assyrian Empire, on the disruption of which it fell under the power of the Medes, B. C. 709. Dejoce, the founder of the Median monarchy, was followed at some distance by Cyaxares, whose successor was Astyages. With his dethronement, in B. C. 560, the Median dynasty terminated, and the true founder of the Persian monarchy, one of the most distinguished characters of ancient times, appears upon the stage.

37. Cyrus the Great having established his ascendency over the Medes, carried his victorious arms into the West, overthrew Crœsus, king of Lydia, and, fulfilling a series of Scripture prophecies, by the conquest of Babylon and its dependencies, extended his empire to the shores of the Mediterranean. An expedition against the Scythians proved fatal to him, B. C. 529, and he was succeeded by his son Cambyses, the most important event of whose reign was his conquest of Egypt. On his death, an impostor, pretending to be his brother Smerdis, mounted the throne; but shortly after, on the discovery of the fraud, was slain by the nobles, who then gave the crown to one of their own number called Darius Hystaspes, who pushed his conquests into the East as far as the Indus. In the West the lands of Asia proved too narrow for his ambition, and he passed over into Europe. Here, after making various conquests, he encountered the Greeks, by whom he was defeated on the field of Marathon. His successor, Xerxes, having marched toward Greece at the head of the most gigantic armament which the world has yet beheld, first at Salamis, and then at Platæa, met with even greater disasters than those which had befallen his predecessors, and with difficulty saved his life by almost solitary flight across the Hellespont. Greece now assumed the offensive, and after many years of struggle, almost always disastrous to Persia, a new conqueror appeared in Alexander the Great, and completed her downfall.

38. The Macedonian Empire was soon broken up by the death of its founder, and Persia, become only one of its fragments, was long passed from hand to hand among contending competitors. About B. C. 174 it fell into the hands of the Parthians, and was ruled by Mithridates I., under whom the Parthian power extended from the Indus to the Euphrates. Rome was now in her full career of conquest, and Parthia was well fitted both to tempt her ambition and try her prowess. The first direct intercourse between them took place B. C. 93, when Mithridates II. sent an embassy to Sylla. In less than 40 years after war between them had

commenced, and though by no means always to the advantage of the mistress of the world, the greater part of Persia was ultimately held as a fief of the Roman Empire.

39. Struggles for independence, however, continued to be almost incessantly made in the times both of the Greek and Roman emperors, and Persia produced several native princes whose fame as warriors or improvers of their country is still held in lively remembrance. They belong to what is called the Sassanian dynasty, which commenced as early as A. D. 226, and continued, though under circumstances of greater or less depression, till 531, when it succeeded in surmounting all obstacles, and attained its highest prosperity under the celebrated Khosru-Nusherwan, who swayed the scepter over realms scarcely less extensive than those which Persia possessed in the time of Xerxes.

40. At a later period (A. D. 590–628) another Khosru, distinguished by the name of Khosru-Perwiz, after commencing his reign by a series of brilliant and extensive conquests, sustained a number of most disastrous reverses, and at last perished by the hand of his own son. The parricide was not long permitted to benefit by his crime; death overtook him six months after, and during the confusion which ensued, a new party, destined to change the face of Persia and greater part of the East, appeared.

41. The Arabs had now commenced their career of Mohammedan conquests, and by the decisive battles of Cadesia, A. D. 636, and Nehavend, A. D. 641, extinguished the Sassanian dynasty, and substituted that of the Caliphs, during whose ascendency, for the two subsequent centuries, the history of Persia becoming blended with that of Arabia and the other realms subject to these potentates, ceases to be national. This long period, however, did not pass away without vast changes, among which the most astonishing is the extirpation of the ancient religion and the general adoption of Mohammedanism.

42. About the middle of the ninth century the spirit of independence revived, and a new dynasty arose in the person of Yakub Ibn Lais, who threw off allegiance to the Caliphs, and reigned sovereign at Shiraz over territories nearly identical with modern Persia.

43. It is impossible here to follow in detail the numerous changes which have subsequently taken place. In the beginning of the eleventh century the Seljookian Turks made their descent from central Asia, and succeeded in placing their sultan, Togral-Beg, on the Persian throne. His successors retained possession till the last of the line was slain in 1194 by the Shah of Kharism, who had scarcely established a Kharismian dynasty, when the famous Genghis Khan made his appearance at the head of 700,000 Moguls, and crushing all opposition, ruled Persia with a rod of iron.

44. The Mogul ascendency was maintained after his death in 1258, first by his immediate descendants, and afterward by the hereditary nobles, who, throwing off allegiance to a common head, divided the country into a number of separate and hostile independencies. This state of matters was suddenly terminated in 1381 by the invasion of Tamerlane and his Tartars, who spread devastation wherever they appeared. All Persia was completely at his feet, when he was carried off by death in 1404. The anarchy of petty independencies again returned, but was finally suppressed in 1502 by Ismail Shah, who, partly by valor and partly by the reputed sanctity of his race as descended from Mohammed, worked his way to the Persian throne, and founded the Sefi or Soofee dynasty, which reached its greatest prosperity during the reign of Abbas the Great (A. D. 1586–1627).

45. This prosperity faded away during the feeble reigns which succeeded, and in 1723 a successful revolt of the Afghans, followed by a series of victories, enabled them to place the Persian crown on the head of their chief, Meer-Mohammed. The Afghan ascendency soon yielded to the prowess of the celebrated general Nadir-Kooli, who, after fighting professedly in defense of the Soofeean dynasty, declared it at an end, and formally assuming the sovereignty which he had long virtually possessed, began to reign in 1736 under the title of Nadir-Shah. His extraordinary talents raised Persia to a remarkable degree of power and influence. One of his most memorable exploits was the invasion of India in 1739, when he took Delhi and obtained booty which has been valued at $150,000,000. His greater qualities were counterbalanced by cruelty and avarice, and he was assassinated in 1747.

46. A period of confusion succeeded, and was not terminated till 1795, when Aga-Mohammed-Khan-Kajar, of Turcoman origin, ascended the throne and became the founder of the Kajar dynasty. The very common fate of Persian sovereigns awaited him, and in 1797, before he had reigned two years, he was murdered by his attendants. His nephew, Rabak-Khan, succeeded him under the name of Feth-Ali-Shah. The most remarkable events of his reign were two disastrous wars with Russia, the one ending in 1813, with the loss of extensive territories along the Caspian; and the other in 1828, with the loss of Erivan and all the country north of the Araxes.

[*Weights, Measures, and Moneys.*—Very intricate, varying not only in the several provinces but also with the purpose for which they are used. The following are the principal:

Weights.—The batman (Tabriz) of 6 rattels, each of 50 derhems or 100 mescals = 2875.5 grammes or 6.34014 lbs. avoirdupois. At Shiraz the batman is only half this value. Gold and silver are weighed by the mescal, and pearls by the abas or half mescal.

Measures.—The guz (common) = 637.5 millimetres or 0.69452 yard, and (royal) = 956.25 millimetres or 1.04178 yard. The archim of Tabriz = 1,118 millimetres or 1.21468 yard. The parasang or league = 3.46 miles. A day's journey = 30 miles. The artaba (corn) of 25 capichas or 50 chenicas = 37.71 litres or 1.07017 bushel. Liquids are weighed.

Moneys.—The integer of money is the toman of 10 sahibkarauns, 20 penebads, 50 abassis, 100 mahmudis or 1,000 altens; 50 tomans = 1 purse. The toman is equivalent, or should be, to the ducat of Venice.]

AFGHANISTAN—HERAT, CABOOL, AND KANDAHAR.

1. Afghanistan is an extensive country between Persia on the west and the Punjab on the east, with Turkestan on its north frontier and Beloochistan on the south. It extends between latitudes 27° and 36½° north, and longitudes 59° and 72° east, and contains a surface area of nearly 300,000 square miles.

2. The northeast portion of Afghanistan is covered with mountains, belonging to the central Hindoo-Koosh, and sometimes rises to the height of 18,000 and 20,000 feet. The other ranges that traverse Afghanistan are the West Hindoo-Koosh or Ghoor Mountains, a continuation of the central Hindoo-Koosh, and the Soliman Mountains. The former skirt the north boundary of the territory, attaining no great height, but are rugged and barren, and of difficult access. The latter traverse north and south, parallel with and close to the eastern limit, and are connected with the central Hindoo-Koosh by the Khyber and Salt Hills. There are also numerous minor hills scattered over the various parts of the country, but the most extensive system is found between the 30th and 32d parallels, and between longitudes 66° and 68° east.

3. But although Afghanistan be a land of rocks, mountain, and desert, there are yet many fertile valleys, well-watered and remarkable for their fertility and beauty. In these favored spots grain is grown in abundance and fruits of the choicest kinds. The most extensive of these valleys or plains are those of Cabool and Peshawur, and there is also an exceedingly fertile tract in the vicinity of Herat. A great part of Seistan, in the west, is a mere desert, as is likewise a large portion of the south and southwest district.

4. Afghanistan is a rich mineral country. Gold is found in the streams flowing from the Hindoo-Koosh, and in some of the valleys silver, and there are silver mines in the Huzareh Mountains. Copper abounds in many places, but the richest mines of this metal are those southeast of Cabool. Lead and antimony are met with in the Ghoorbund valley and in the lower part of the Hindoo-Koosh; the latter exists also in the Khyber range. Iron ore occurs in great abundance throughout the Hindoo-Koosh, and coal is found in several districts.

5. The climate is various, the cold being severe in the high regions, and the heat extreme in the low lands. These extremes are strikingly illustrated by the presence of snow on the mountains while the heat of the plains is all but intolerable. The southeast is the hottest region, and at Kandahar even the summer heat often marks 110° Fahr. in the shade, and at Cabool the temperature in winter is frequently 5° or 6° below zero. But when the vernal equinox is past, the cold suddenly subsides and a warm spring covers the plains with grass and flowers.

6. The most common trees in the mountains are pine, oak, and wild olive, and intermingled with these are the cypress, which attains a great size, walnut, birch, and holly. On the lower offsets of the Hindoo-Koosh the indigo plant grows spontaneously. On the plains are found the mulberry, tamarisk, acacias, date-palms, willow, plane, and poplar. But it is in the production of fruits that Afghanistan excels, few other places supplying such great variety and abundance.

7. Wild animals are neither numerous in species nor formidable. A small species of lion inhabits the hilly country about Cabool, and a degenerate tiger is found in the eastern districts. Hyenas, wolves, jackals, and foxes are everywhere, and bears in the wooded mountains. The other wild animals are the gorkhar or ass, various kinds of deer and goats, etc. Elephants and rhinoceroses, once numerous, are not now found in a wild state.

8. The population is composed of a great number of different races and tribes, the principal of which are the Dooraunees, the Berdooraunees, the Ghiljies, and the Khakas tribes, all of which are again subdivided into numerous smaller families or clans. The Dooraunees are the most influential on account of the extent of territory they occupy. They inhabit the central portion of west Afghanistan, and are partly pastoral and partly agricultural. The Berdooraunees occupy the northeast districts and the hill country. They are said to be extremely quarrelsome and of a savage disposition. The Ghiljies are, after the Dooraunees, the most eminent of the tribes. The Khakas tribe inhabits the south part of the Khakas country, northwest of Sewestan. The total population is estimated, but from uncertain data, at 6,000,000 souls.

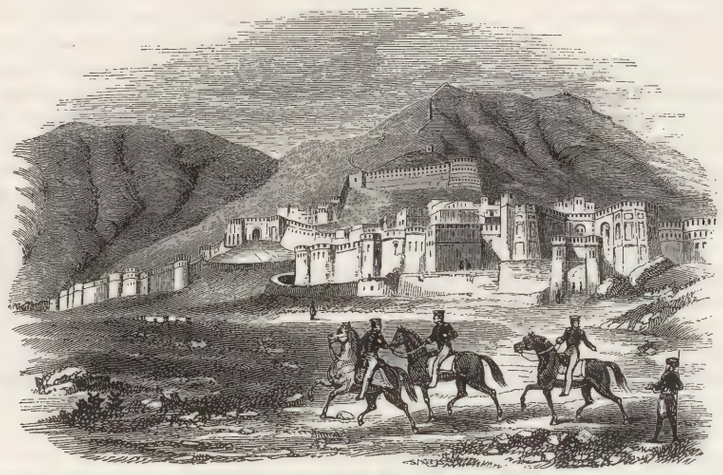
9. The Afghans are mostly Mohammedan Soonnees, but all the Persians in the country are Sheeahs, and between these two sects the bitterest animosity prevails. The mollahs or priests are an influential body, and being composed mostly of active and intelligent men, have acquired an almost unlimited power and authority in the country. The education of youth, the practice of the law, and the administration of justice are entirely intrusted to them.

10. Afghanistan was formerly a hereditary monarchy; but is now divided into three chiefships—Herat, Cabool, and Kandahar. The revenue of the first is about a million dollars a year—half in money and half in produce. Cabool is believed to have yielded, under a system of grinding taxation, about $1,200,000, and Kandahar about $400,000. The whole Afghan force, which is chiefly cavalry, amounts to about 16,000 men; they are but imperfectly disciplined, and are embarrassed by the multitude of their arms. The police of the country is very bad. In the cities justice is administered by a cauzee or cadi, assisted by inferior officers, and in the country parts by the chiefs of tribes and the priests.

11. The chief wealth of the country is in the flocks and herds. The disproportionate amount of tillable land to the whole surface is too apparent, and as a consequence agricultural pursuits are essentially local, but as there are two harvests in most parts of the country, a sufficiency is usually produced. Wheat is the staple food of the people, barley being generally fed to horses, and turnips are largely cultivated for cattle. The land is always irrigated before being plowed, and the plowing is deeper than in India.

12. There being no navigable rivers, and the country being but ill adapted to wheel carriages, commerce is generally carried on by beasts of burden, chiefly camels, formed into caravans. The principal foreign trade is with India, Persia, and Turkestan, and consists almost wholly of an interchange of the products of those countries for those of Afghanistan. Slaves are also imported from Arabia and Abyssinia. The internal trade of the country is more valuable than the foreign trade. The principal marts are Cabool, Peshawur, Kandahar, and Herat.

13. Cabool, capital of northern Afghanistan, is situated on the Cabool River, in latitude



THE BALA-HISSAR OR CITADEL OF CABOOL.

34° 30′, and longitude 69° 6′—elevation 6,396 feet. It is inclosed on the north, west, and south by hills, along which run some weak ramparts, and at its east end is the Bala-Hissar (palace of the kings), a citadel comprising the residence of the chief, various government offices, the royal gardens, an inner fort, and a small town of 5,000 inhabitants. The outer town, about three miles in circuit, is entered by four gates, and has two principal thoroughfares running parallel to each other. The city is subdivided into districts, each inclosed by walls, and capable of being shut off from the rest so as to form a separate fortress. The streets are intricate, often too narrow for two horsemen to pass each other, and very badly paved. Cabool has an active trade with Russia, China, and Turkestan, and has considerable markets for cattle, corn, etc. Population 60,000.

14. Ghuzni, a famous fortified city 80 miles south from Cabool, is built on the west extremity of a hill range, 7,726 feet above the sea-level, and 280 feet above the adjacent plain. Its walls, about 35 feet high, and flanked with numerous towers, form an irregular square about 1¼ miles in circuit. In the northeast part of the town is the citadel, with a palace, magazine, and granary; the whole city, however, is commanded by adjacent heights. It has several bazaars, and is an entrepôt for the trade between Afghanistan and the Punjab. Population 10,000. Old Ghuzni, destroyed in the twelfth century, lies about three miles southeast; about the beginning of the eleventh century it was the capital of an empire reaching from the Ganges to the Tigris and from the Jaxartes to the Indian Ocean. Its ruins cover a large surface, and here are two fine minarets and the tomb of Mahmoud of Ghuzni, from which the famous "gates of Somnauth" were removed in 1842.

15. Peshawur, a frontier city, is 12 miles east of the Khyber Pass, and about 160 from Cabool. It was taken and ruined by the Sikhs during the present century, and has never yet recovered prosperity, much of it still remaining in ruins. The only remarkable edifices besides its desecrated mosques are a magnificent caravansary, now the residence of the Sikh governor, and a fort on the site of its ancient citadel. It is, however, in so good a position for commerce that, under a settled government, it must soon resume its importance. It formerly contained 120,000 inhabitants; now scarcely half that number.

16. Kandahar, the capital of central Afghanistan, is built on a fertile plain, in latitude 32° 37′, and longitude 66° 20′—200 miles southwest Cabool. It is inclosed by bastioned mud walls, four miles in circuit, and by a ditch; and it has a citadel on the north side. The houses are mostly built of wood, and the city is well supplied with water from canals and public wells. The mosques are mean, and almost the only public building worthy of notice is the tomb of Ahmed Shah, the founder of the modern town. Various manufactures are carried on in Kandahar, and its transit trade is considerable. Population 60,000, mostly Afghans, but also Persians, Tartars, Jews, and Hindoos, which last almost monopolize its commerce.

17. Herat, the capital of northwestern Afghanistan, is situated on the Hurri-Rood, 360 miles west Cabool, in latitude 34° 51′, and longitude 62° 28′; and is a post of great military as well as commercial importance. It is strongly fortified, and has withstood several sieges by the Persians, but in 1855 was captured. The city is stated to contain 4,000 dwelling-houses, 1,200 shops, 17 caravansaries, 20 public baths, some fine reservoirs and numerous mosques, the principal of which is a large structure of the thirteenth century. Population about 40,000. The vicinity is very beautiful and irrigated by numerous canals; and Herat itself has been usually one of the most flourishing places in the East, and a grand central mart for the products of India, China, Tartary, Afghanistan, and Persia. It has also manufactures of carpets, sheepskin caps and cloaks, shoes, etc. Most of the wealthy merchants are Hindoos.

[*Weights, Measures, and Moneys.*—Cognate with those of Persia.]

BELOOCHISTAN.

1. Beloochistan lies immediately to the south of Afghanistan, and extends along the ocean from Cape Monze to Cape Jask, about 600 miles, and inland for 380 or more miles. Its area is computed at 183,000 square miles.

2. The country is rugged and mountainous, with some extensive intervals of barren sandy desert. The general parallelism and uniformity of the mountain ranges is remarkable, one system having a north-and-south inclination and another more palpably an east-and-west direction. Of the latter, one vast chain stretches along the coast, and is apparently a continuation of the great mountain-system of Armenia. Parallel, and at a distance of 70 miles, is another well-defined chain near Beila. A third range, a hundred miles north from the last-named chain, forms part of the north boundary. The other more remarkable chains are the Bushkurds, stretching southwest and northeast, and the Sarawanee, stretching generally in the same direction, and the Hala, forming part of the east boundary, and connecting with the elevated region of Afghanistan. Many of these mountains are of great height and capped with snow.



THE BOLAN PASS.

3. The largest streams are the Dustee or Bhugwar, the Bunth, the Sudgee, the Siroo or Tank, the Aghor, the Kurmut, and the Pooralee, all of which fall into the Arabian Sea. In the north are the Bolan and the Molloh, which are ultimately lost in the sands of Gutch Gundava. Their courses form the celebrated passes of the same names, leading from the valley of the Indus to Beloochistan and Afghanistan.

4. In the plains and valleys the summer heat is oppressive. Some parts in the southwest are said to be the hottest localities in Asia. The soil is not in general fertile, but patient industry has rendered the plains and valleys very productive. The chief crops are madder and various kinds of pulse and oil seeds. Cotton is grown in the east; and in the low lands and hot regions rice, maize, indigo, and tobacco. On the sides of some of the mountains, and in the jungles which generally cover the wide beds of the rivers, forest trees are numerous. Leopards, wolves, hyenas, jackals, tiger-cats, and foxes are found in the jungles; but, except on the east borders, lions and tigers are seldom seen. On the coasts, fish are caught in great quantities. The domestic animals are horses, mules, and asses; camels and dromedaries; sheep, goats, cows, and buffaloes.

5. The Belooche government is despotic, the khan having unlimited power over life, person, and property. He usually resides at Kelat, but his rule is almost confined to the immediate province around it, the greater part of the country being held by tribes who acknowledge subjection only to their own chiefs. He has no standing army, but all the heads of tribes are bound to furnish contingents of men in case of war as well as to pay tribute.

6. The inhabitants are divided into two great branches, called Belooches and Brahooes, differing in their language, figure, and manners. The Belooches are tall and well-formed, and have small bones, long faces with prominent features, a dark complexion, and black hair. They are indolent, dissolute, and vindictive. The Brahooes are much shorter and broader than the Belooches, and have large bones, round faces, and flat features. Both races are pastoral—both hospitable, brave, and enduring, and live in tents. They are of the Soonnee sect of Mohammedans. Neither race possesses a written language. The Belooche language resembles the modern Persian; the Brahooe the Hindoo. Manufactures are confined to a few matchlocks and other fire-arms at Kelat, and the trade is very unimportant. The whole population does not exceed 2,000,000.

7. Kelat, the capital, is a walled town on a hill 600 feet above sea-level, in latitude 28° 52′, and longitude 66° 33′, and with its suburbs contains 12,000 inhabitants. It is fortified and commanded by a large citadel. As a town it is ill-built; but is well supplied with wares and provisions, and has some transit trade, with manufactories of muskets, swords, and spears. Gundava, 115 miles east Kelat, is the usual winter residence of the khan, and has about 17,000 inhabitants. Kedje, on the Dustee River, stands at the foot of a rock crowned by a strong fort, and had formerly 3,000 houses and an extensive trade. Beila is built near the Pooralee River, and consists of about 800 houses, chiefly mud, and contains about 4,000 inhabitants.



THE KANDAHAR GATE AND FORT OF KELAT.

HINDOOSTAN.

1. Hindoostan, the central of the three great peninsulas of southern Asia, is situated between latitudes 8° 6′ and 35° 20′ north, and longitudes 67° 49′ and 93° 22′ east; and is bounded on the north by the Himalaya Mountains, on the east by the Brahmapootra River, the Bay of Bengal, and Palk's Strait (which latter with the Gulf of Manaar separates the southern part of the peninsula from the island of Ceylon, and on the west by the Indian Ocean and the river Indus. Its extreme length, north and south, is 1,880 miles, and its greatest width is about 1,460 miles, narrowing southward very gradually almost to a point. The area is estimated at nearly or about 1,500,000 square miles.



PAGAN WORSHIP.

2. Geographically, this region is separated into two grand divisions—Hindoostan proper, between the Himalaya and the Vindhyan mountains, in about latitude 20° north (this division also including the Punjab and Scinde), and what is more strictly called "Peninsular India," bounded west and east by the Indian Ocean; and which is again subdivided into the Deccan (the south) and India-south-of-the-Krishna River.

3. But foreigners are less familiar with the foregoing subdivisions than with those instituted by the Mohammedan conquerors of India; which, with a few provinces still retaining their native designations, may be thus tabulated:

Great Divisions.	Mohammedan, etc., Provinces.
1. Hindoostan proper	Delhi, Agra, Malwa, Rajpootana (or Ajmeer), Goojerat, Cutch, Scinde, Mooltan, Lahore, Cashmere, Kumaon, Gurhwai, Nepaul, Oude, Allahabad, Bahar, and Bengal.
2. The Deccan, etc.	Candeish, Berar, Aurungabad, Beeder, Hyderabad, Gundwana, Orissa, the Northern Circars, and a part of Bejapoor.
3. India south of the Krishna	Part of Bejapoor, Canara, Balaghaut, Mysore, Salem, Coimbatoor, Malabar, Travancore, Madura, and the Carnatic.

Since the European conquest of India, however, these subdivisions also have, for the most part, become obsolete, and the whole of Hindoostan, Nepaul and Bootan excepted, is now included in the British presidencies of Bengal, Madras, and Bombay, and the native states dependent on the same general divisions.

4. The great mountain systems of Hindoostan are the Himalayas, the East and West Ghauts, and the Vindhyan range. The Himalayas, forming the north boundary of this region, are the loftiest and most stupendous mountains in the world. Their average height is about 15,700 feet; but their loftiest summits, Mt. Everest, Dhawalagiri and Kunchinjinga, attain an elevation of 28,000 to 29,000 feet. The East Ghauts commence in the south, about latitude 11° 20′ north, and, pursuing a northeast direction across the country, extend to the banks of the Krishna, in latitude 16° north, separating the Carnatic from the table-land of the Deccan. The utmost height of this range does not exceed 3,000 feet. The West Ghauts extend from Cape Comorin to the river Taptee, about latitude 21° north, extending through about 13° of latitude, and running parallel to the west coast, from which they are seldom more than 70 miles, and generally only about 40 miles distant. Their highest elevations reach to from 5,000 to 6,000 feet above sea-level. An offset of this range, however, stretching northeast, has an elevation, in Mt. Permdul, of 7,364 feet, and it is believed that there are higher elevations farther west. The Vindhyan Mountains run east and west across the central part of India, constituting a base to the triangle, of which the East and West Ghauts form the other two sides, and complete the boundary of what is called the table-land of the peninsula. The greatest height of the Vindhyan Mountains, however, is not supposed to exceed 3,000 feet.

5. The surface of the Deccan is between 3,000 and 4,000 feet above the sea, and is a collection of plains, interspersed with ridges of rock and insulated flat-topped hills. These solitary and almost inaccessible heights rise abruptly from the plains, with all but perpendicular sides, which can only be scaled by steps cut in the rock, or by dangerous and winding paths. Many are fortified, and have been strongholds from remote antiquity. South of the Deccan is the table-land of Mysore, 7,000 feet about the sea, surrounded by the Nilgherry or Blue Mountains and their branches, which rise to 3,000 feet higher. The base of this immense plateau, as of all the Deccan or southern portion of the peninsula, is granite; there are also many syenitic and trap rocks, with an abundance of primary and secondary fossiliferous strata.

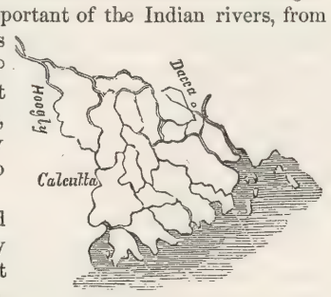
6. The sea-coasts on the two sides of this part of the peninsula are essentially different; that of Malabar, on the west side, is rocky, but in many parts well cultivated, and its mountains, covered with forests, form a continuous wall of very simple structure, 510 miles long, and rather more than 5,000 feet high. On the coast of Coromandel the mountains are bare, lower, frequently interrupted, and the wide maritime plains are, for the most part, parched.

7. The Gangetic plain comprehends the vast tract of level country drained by the Ganges and its affluents, extending from the Himalayas on the north to the Vindhyan and other ranges on the south, and on the west to the Indian Desert and the mountains of Rajpootana. The lower portion of this plain (Bengal, etc.) is annually submerged for several months by the inundation of the Ganges. This plain is the most fertile, best cultivated, and most thickly inhabited portion of Hindoostan, containing more than a full half of the entire population of the peninsula.

8. The desert of the Indus or Great Sandy Desert extends from the southeast confines of the Punjab to the Runn, a distance of about 500 miles, and is connected on the northeast with the high country which separates the plain of the Ganges from that of the Indus. It stretches in a direction parallel to the latter river, but divided from it by a fertile tract of land from 10 to 15 miles in width. It contains several large oases, of which considerable portions are under cultivation. The southern part of this desert embraces nearly the whole of the delta of the Indus, across which river it is continuous with the desert of Beloochistan, and with that wide band of sandy and sterile regions stretching from central Africa northeast over the whole center of the Asiatic continent.

9. The rivers of Hindoostan, like its mountains, are on the most magnificent scale. The principal are the Indus, Ganges, and Brahmapootra. The Indus, which forms the western boundary of Hindoostan proper, after having passed the Himalayas, flows in a southwest direction. Its sources lie in Tibet. Having traversed the Punjab and Scinde, comprising a course of about 1,600 miles, it falls, by several mouths, into the Indian Ocean. Its stream is foul and muddy, and so full of shoals and shifting sands that it can only be navigated with safety by flat-bottomed boats; with these it is navigable for about 1,200 miles from the sea. It is said to discharge nearly as much water as the Mississippi, and four times more than the Ganges.

10. The Ganges, though not the largest, is the most important of the Indian rivers, from the fertility it diffuses around it, and the facilities it affords for internal communication. It rises about latitude 31° north, longitude 79° east, and after pursuing a southeast course of about 1,400 miles, enters, by numerous mouths, into the Bay of Bengal. It is held in high veneration by the Hindoos, who consider its waters so sacred, that to swear upon them constitutes their most binding oath.



DELTA OF THE GANGES.

11. The Brahmapootra exceeds the Ganges in size, and probably in the length of its course. Its sources are very imperfectly known, but the main stream is traced to about latitude 28° north, and longitude 96° west, in Upper Assam, where it is considered to be formed by a junction of the Dihong, Dibong, and Lopit rivers. The second of these penetrates into Assam, from Tibet, breaking into southern Asia, like the Indus and Sutlej, by gorges in the Himalayas. The Brahmapootra enters Bengal in the Rungpore district, and, having run a course subsequently of nearly 300 miles in a south and southeast direction, falls into the Bay of Bengal, in conjunction with the largest branch of the Ganges. For the last 30 miles of its course it has a breadth of from four to five miles, increased to ten miles at its mouth.

12. Among the other rivers of note in Hindoostan are—the Jumna, Chumbul, Sone, Gunduck, Goggra, Teesta, etc., tributary to the Ganges; the five rivers of the Punjab—the Sutlej, Bees, Ravee, Chenab, and Jailum, affluents of the Indus; and in Peninsular India—the Nerbudda and Taptee, flowing westward, and the Krishna, Godavery, and Mahanuddy, entering the sea on its eastern side.

13. In remarkable contrast to its mountains and rivers are the lakes of Hindoostan; the latter being few in number, shallow, and comparatively small in size. Among the largest are the Chilka and Colair lakes, both on the eastern shore of the peninsula. The former, a salt-water lake, is about 35 miles in length and eight miles in average breadth, its general depth being four and one-half feet. The Colair, a fresh-water lake, is of an oval form, and, in the dry season, is about 25 miles in length, and about 10 miles in breadth at its widest part. In the rainy season it greatly exceeds these limits. It contains numerous islands, which disappear as the lake swells, and reappear as the floods subside. On a failure of the periodical rains, it dries up altogether. To make up, however, for the want of natural reservoirs, the whole surface of India is more or less interspersed with tanks or artificial collections of water made for the purpose of irrigation; and jeels or large ponds, formed by some of the large rivers during their inundations, are also numerous in several provinces. On the west side of Hindoostan is a remarkable tract of morass, called the Runn, lying between the province of Cutch and the southeast parts of Scinde, and having communication with the Gulf of Cutch. It is about 150 miles in length, and in greatest breadth about 60 miles. Several considerable rivers disembogue into this capacious tract, which is diversified with several verdant oases, and on which the phenomenon of the mirage is of frequent occurrence.

14. From the vast extent of Hindoostan, stretching, as it does, through no fewer than 27° of latitude, its climate and productions, particularly the former, by position and local influences, can be here spoken of but cursorily, and without detail. Generally speaking, however, Hindoostan has three seasons—the hot, wet, and cold. The first commences about the middle of March, and continues for three months. The heat is, for the most part, intense, and in some places so excessive, especially on the Coromandel coast, as to destroy vegetation, the thermometer ranging, in the sun, from 100° to 110°, and rising as high even as 120° Fahr. The wet season also occurs during the southwest monsoon in most parts of India, though, in the country east of the Ghauts, the rains occur when the winds blow from the opposite quarter. The rains are ushered in with a dreadful commotion of the elements—lightning, thunder, and tempest; and the rain which it brings, though falling for some time at intervals only, gradually becomes a continuous deluge. The northeast monsoon blows during the winter months, and the southwest during the rest of the year. In the cold season fogs and dews are common, and the degree of cold is so great in some places as to render fires necessary. Even in Calcutta the thermometer falls as low as 52° in December with a northeast wind, and in some of the northern provinces to 45° and 35°. In the low plains, as far north as latitude 18°, winter is hardly perceptible. At Bombay the mean annual temperature is stated to be about 82°; at Madras, 84°; and at Calcutta, 79° Fahr.

15. The forests of Hindoostan contain an immense variety of large trees, little known in Europe, but capable of yielding valuable timber, and distinguished by their fragrance, luxuriant growth, or adaptation for manufactures. Teak of the first quality grows on the West Ghauts. Other forest trees, characteristic of Indian scenery, are—the banian, sappan, saul,

sissoo, etc., with which are seen the oak, cypress, poplar, etc. Large and beautiful flowering shrubs are in great variety. Forests of bamboo are numerous, and so rapidly does their growth proceed, that some of these reeds have been reported to attain a height of 60 feet in the course of five months! Extensive tracts of the country are covered with dense jungles, the resorts of formidable wild animals; mangroves cover the swamps at the mouths of the rivers; and the whole of that wide tract termed the Sunderbunds, at the united delta of the Ganges and Brahmapootra, is a rank forest, inhabited by tigers, deer, and elephants, and the rivers traversing which are, in many parts, rendered impassable by ships on account of the obstacles to which its thick vegetation gives rise.

16. The principal vegetable productions of Hindoostan are—rice, maize, wheat, barley, cotton, indigo, sugar-cane, opium, tobacco, ginger, saffron, cardamoms, pepper, cocoa, areca, and other palms yielding nuts, which are extensively consumed by the native population, anise, silk, various dyes, flax, hemp, cotton, etc. The principal indigenous fruits are—the mango, the finest of all the Indian fruits, pisang or plantain, pomegranate, citron, date, almond, grape, pine-apple, and tamarind. In the northern provinces, apples, pears, plums, apricots, and other European fruits abound. Oranges and lemons are also to be met with, but are of inferior quality.

17. Of wheat, several varieties are grown, some of very fine quality, as the soft wheat, called pyssee, and the hard, called jullalya. Indian corn or maize is cultivated in small quantities all over Hindoostan, but not as a corn crop, being eaten chiefly in a green state, and after the grains have been roasted. The great millet or durra of the Arabs (jowary of India) occupies the place of maize in other parts of Asia. But, besides the cereals, a great variety of pulses are cultivated; also yams, sweet potatoes, onions, garlic, etc.

18. Sugar-cane is raised, less for the manufacture of sugar than the consumption of the cane itself, as a sweetmeat and article of food; though some of the finest grain sugar is produced in Hindoostan. The opium-poppy is cultivated to supply opium for foreign exportation exclusively in the provinces of Bahar, Benares, and Malwa. Indigo is raised in great quantities in the lower plain of the Ganges, particularly in Bengal, and also in other parts of Hindoostan. Cotton of several kinds is produced, chiefly on the table-land of the Deccan; and if ready means of transit for it thence to the coast existed, India could be made to yield an all but inexhaustible supply, at prices which might defy competition. Cardamoms and pepper are among the most valuable products of the Malabar coast, to which locality their culture is almost exclusively confined. Benzoin, camphor, sarsaparilla, and many other drugs, are indigenous.

19. The minerals of this vast territory are as various as its otner products. The Himalaya Mountains abound in iron, copper, and lead. Graphite has been found in the province of Kumaon, and traces of lignite in the tertiary formation, where immense deposits of fossil bones have also been discovered. Deposits of coal stretch across India from east to west; from Assam and Sylhet into Burdwan, and along the course of the Nerbudda, as well as in the western district of Cutch. Agates and carnelians abound throughout central India. Niter and nitrate of soda effloresce in great quantities on the soil in different parts of Hindoostan. Gold is procured by washing the sand of some rivers, and iron is in many parts abundant. Diamonds are found at Panna, in Bundelcund, the mines of which, under the name of Panassa, are mentioned by Pliny. They are also found in the Deccan, but few are now produced. Porcelain clays are plentiful, as are marbles of various colors. Alum is obtained in Cutch in considerable quantities.

20. The elephant, tiger, leopard, panther, hyena, wild boar, and ass, deer, bears, jackals, foxes, marmots, the orang-outang, and numerous other kind of apes, are natives of Hindoostan. Lions are found in the north. The elephant, buffalo, dromedary, horse, and ass have been domesticated; the first named has, from time immemorial, formed an important appendage to the retinue of Indian princes, and the right of property in wild elephants was claimed by them as a royal privilege. The Mahratta horse is a small and active animal, but ungainly, and Hindoostan has never been particularly famous for its breed of horses. The wild ass is a native of the desert. Troops of pariah dogs infest the cities and towns of Hindoostan. In the lower forms of animated life, Hindoostan equally abounds as in the higher. Alligators and gavials are abundant in the tanks and rivers; and formidable serpents inhabit this region.



ELEPHANT PLOW.

21. The Hindoos are not the aboriginal inhabitants of India; but, having arrived from the northwest, they first occupied that portion of the country to the north of the Nerbudda, called, emphatically, Hindoostan; and subsequently crossed the Nerbudda into the Deccan, where they also dispossessed the natives. The native tribes, however, were by no means exterminated; and, under the various denominations of Bheels, Coolies, Catties, Coals, Gonds, etc., they still exist in the peninsula. They are mostly of small, active frame, dark colored, and with a peculiarly quick and restless eye; uncivilized or owning only a few importations of Hindoo superstition or civilization. They have little clothing, and few arms beyond bows and arrows; their ordinary food consists of wild berries and game; they have no repugnance to killing or eating oxen; and they bury their dead, instead of burning them. The aboriginal tribes chiefly inhabit the fastnesses of Gundwana, the Vindhya, and Sautpoora mountain ranges, and their offsets and continuations, as far east as the hills of Bengal; they are also to be found on the eastern frontiers of Bengal, and in considerable numbers in Candeish, Goojerat, and along the West Ghauts. There is, in fact, scarcely any considerable mountain or hill region in India where some of them are not to be found; and the districts they inhabit are the wildest and most unreclaimed portions of the whole peninsula, many of them remaining still unexplored.

22. Although commonly darker in color than the rest of the nations composing the Caucasian race, the Hindoos are held to belong to that great division of mankind. They are well-formed, and, in some parts of India, as in the Deccan and the upper plain of the Ganges, they are even robust, energetic, and hardy; but the chief bodily characteristic of the Hindoos is extreme suppleness and flexibility of the animal fiber. The face of the Hindoo is oval; the eyes are uniformly dark brown, with a tinge of yellow in the white; and the hair as constantly long, black, and straight. The upper classes, especially in Hindoostan proper, are nearly as light in color as the natives of south and central Europe, and they are also far more handsome and tall than the lower classes. In proportion as we proceed toward the southern extremity of the peninsula, the hue of the skin is observed to darken, until, in the lower castes, it assumes almost the blackness of the negro. Subtlety and shrewdness are the most conspicuous mental characteristics of the Hindoos, and they have been properly described as "the acutest buyers and sellers in the world." In their manners they are mild and retiring.

23. In a few arts and manufactures—such as weaving, dyeing, carving, stone-cutting, architecture and sculpture of certain kinds, and the fabrication of some metallic articles—the Hindoos have undoubtedly excelled. The cotton, muslin, and silk fabrics, the carpets and the shawls of India, have deserved celebrity; and embroidery is an art in which the Mohammedans of Dacca display extraordinary skill. They embroider Cashmere shawls and scarfs, muslins, and net fabrics, with silk, gold, and silver thread, in a manner probably not equaled in any other part of the world. The silks of India are inferior to those of China; but for the production of shawls the country is unrivaled, especially the province of Cashmere, where these goods are woven from the fine hair of the Tibet goat. Trichinopoly is noted for the manufacture of gold chains of exquisite workmanship; and at several places, on the west side of the peninsula, carnelians, blood-stone, and other products of the same character, which are abundantly found in that region, are cut and polished in superior style. In filigree work, and stone, wood, and ivory carving, pottery, and engraving on gems, the Hindoos are highly respectable artisans; and the beauty, brilliancy, and durability of their dyes were as celebrated among the Greeks and Romans as they are at the present day.

24. All the excellence hitherto evinced by the Hindoos in the prosecution of arts and sciences appears, however, to have been wholly manipulative. The people, with a few rare exceptions, have evinced no grasp of intellect, enabling them to become versed, beyond a very limited extent, in the higher branches of learning. In arithmetic, algebra, geometry, and astronomy they have made some rudimentary progress; and their genius is somewhat adapted to metaphysical speculations and the intricacies of grammar and jurisprudence; but their geography, medicine, and other practical sciences, are a chaos, and their agriculture is of the rudest kind.

25. In literature the Hindoos are, and always have been, far behind several neighboring nations. Except some of their theological writings, the only works of any celebrity among them are the "Mahabarat" and the "Ramayana;" the one recording the wars of the sons of Baharat, and the other the adventures of Rama. They are both poems, there being hardly any prose compositions in Hindoo literature, and both extremely bad, being destitute of every quality they ought to possess, and having nearly all they ought not.

26. The state of education is equally backward, there being scarcely one man in a hundred who can read a common letter; neither can they derive any benefit from such scientific or other useful works as they have, in consequence of their being all written in Sanscrit, with which the mass are entirely unacquainted. The females are, in general, utterly ignorant of reading and writing, a Brahminical prejudice existing against female education.

27. Hindoostan, and especially the Deccan, abounds with stupendous and highly elaborate architecture; not, indeed, possessing the elegant proportions of the edifices of the ancient Greeks, but rather exhibiting the ponderous sublimity which characterize those still extant in Egypt, with the addition of a great deal of ornamental and minute sculpture representations of the deities of the Hindoo pantheon, and their reputed acts, etc. Among the most remarkable monuments of the kind are the excavated temples of Elora, Elephanta, Carlee, and Baug, on the west side of the peninsula; the pyramids of Pooree (Juggernaut) in the east; and the temples of Tanjore, Trichinopoly, etc., in the south. Most of these are Brahminical, others of Buddhist, and some of Jain origin; all have been constructed at epochs long past, and some may perhaps boast of a high antiquity.

28. In the region of Hindoostan proper, which was the great seat of Mohammedan ascendency, many beautiful structures, constructed by the western invaders of Hindoostan, exist; the most elegant of which is the Taj-Mehal, at Agra—a splendid mausoleum constructed by the emperor Shah Jehan. In the Mohammedan edifices marble is plentifully employed—a material never used in Hindoo structures—all of which have either been excavated in sandstone or hewn out of granite. Throughout the center and south of India hill-forts, on heights difficult of access, are numerous, and have proved formidable strongholds of native chiefs. But, with exception of the latter, and of the embankments, tanks, and other constructions for facilitating irrigation—in which endeavor the Hindoos have displayed much care and ingenuity—nearly all the great architectural efforts of the Hindoos have been spent on structures connected with their religion.

29. The Brahminical religion dates, no doubt, from a very remote epoch. It acknowledges a self-existent Supreme Being, who, however, is held by it to take no concern in the government of the universe; this being legated to his triune manifestation—Brahma, Vishnu, and Siva—who are respectively emblematical of the creating, preserving, and destroying powers. To Brahma, except among a sect termed the Jangams, who inhabit chiefly the south of India, there is but one temple dedicated, which is situated near Ajmeer, in Rajpootana. The great bulk of the Hindoo population are Vaishnevas or followers of Vishnu, or Saivas, votaries of Siva; besides which divinities, a vast multitude of inferior deities are worshiped, their number amounting, according to the Brahmins, to 333,000,000! Figures of a great many of these deities and their attributes are sculptured in the temples, and retained as household gods in the dwellings of the people to receive daily adoration; and however, at first, the Hindoo pantheon might have merely represented emblematically the forces of nature, and changes in material bodies, it has given rise to the most gigantic and degrading system of idolatry in the world.

30. The temples and worshipers of Siva, the destroyer, are far more numerous than those

14,495,100 of Nature

ASIA

(SOUTHERN SHEET.)

SCALE OF STATUTE MILES 69.16 TO 1°
0 50 100 200 300
200 Geographical or 230.53 Statute Miles to an inch

EXPLANATION
Capitals of Empires, Presidencies &c. — ⊙ CALCUTTA
Principal Towns — ○ Hyderabad
Rail Roads

Entered according to Act of Congress in the Year 1858 by J.H. Colton & Co. in the Clerks Office of the District Court of the United States for the Southern District of New York.

of any other Hindoo idol; and his worship, like that of the goddess Kali or Doorga, is, at certain periods, marked by acts and sacrifices of the most brutal and savage kind. The worship of Vishnu, the preserver, which is chiefly prevalent in Bengal and Orissa, and that of Krishna, the representative of the sun, are unpolluted by any such barbarities. The votaries of Siva and Vishnu are distinguished by certain colored marks on the forehead; those of the Saiva sect being horizontal, and those of the Vaishnevas perpendicular.

31. The supremacy of the Brahmins, and the doctrine of metempsychosis or of the transmigration of the soul, after death, into the bodies of animals or human beings, for a long series of ages, according to the purity or impurity of previous life, are leading dogmas of the Brahminical faith. Pilgrimages to remote and holy places, penances and offerings to the priesthood, are held in high esteem; the avoidance of impure or forbidden food, especially the flesh of the cow, and the preservation of caste, are among the most important moral duties enjoined on the Hindoo. In no country does the religion of the inhabitants appear so prominent, in every act, as in Hindoostan. It pervades the entire frame of civil society, and mixes itself up with every concern of life.

32. The whole of Indian theology is professedly founded on the Vedas, four in number, and believed by the Hindoos to have been revealed by Bramah himself; but, practically, the Puranas and the Institutes of Menu, compositions of later dates, and which insist more strongly on the supremacy of the priesthood, are the basis of the existing Brahminical system.

33. The institutions of caste, so characteristic of society throughout nearly the whole of India, can not be considered entirely peculiar to that region, since prejudices of rank and position prevail in other countries, in many curious respects, similar to those which divide the classes of the population in Hindoostan; but nowhere are such prejudices and distinctions pursued to such ramifications, and in so arbitrary and often merciless a manner, as in that portion of the globe under consideration.

34. In the outset, the Hindoos are divided into four great classes or castes—the "Brahmins" or sacerdotal class; the "Kshetriyas," warriors and rulers; the "Vaisyas," capitalists, traders, and farmers; and the "Sudras," laborers, artisans, and menial servants. These divisions are hereditary, impassable, and indefeasible. The first three classes are termed "twice born," and are fabled to have sprung from the mouth, the breast and arm, and the thigh of Brahma; while the Sudras, at an immeasurable distance below the rest, are deemed only "once born," and to have sprung from the foot of the divinity.

35. But, in addition to the foregoing, there are a vast number of subdivisions constituting so many different castes, originating in intermarriages of the four great orders, or dependent on the employments, trades, or professions they pursue—some of which are held to be much more honorable and worthy than others; and, in addition, a very large number among the population, particularly in certain districts, are outcasts or of no rank whatever; and some are so utterly abominable that a Brahmin is defiled by coming within their shadow! Purity of caste is incapable of acquisition; and the Mahratta chieftain, besides others who, at various times, have acquired sovereign dominion, have been still held to be no more than Sudras or of the servile class.

36. The Brahmins are regarded as greatly superior to the rest of the population, and are distinguished by wearing a certain cord termed the "thread;" they may engage in warlike or literary pursuits, and some others are held not derogatory to their dignity; but they are mostly attached to the pagodas, and live by giving instruction or on the alms of the charitable and devout. A remarkable section of the religious orders is formed by the fakeers or mendicant monks. They dress in rags, and live in filth and perpetual poverty on the alms of the faithful; practice on themselves the most unheard-of descriptions of ascetic tortures; perform pilgrimages; pretend to the gift of prophecy; and, though held in high veneration by the mass of the people, they are of the most abandoned habits, and the greatest of Hindoo cheats and deceivers. The military profession is held to be nearly as honorable as the sacerdotal. The Vaisyas or mercantile classes are regarded with much less consideration.

37. Agricultural employments are generally held to be creditable, as are ordinary trades, except those of fishermen, curriers, and others having to do with animals and animal products; as also those which are concerned with spirituous liquors, which are abstained from by the pure castes. Burners of the dead and public executioners are held to be wholly impure; and baskets and mat makers, in some districts, as that of Patna, for instance, are considered so despicable that they are not allowed to enter the villages.

38. With all these fine-drawn diversities of rank and respectability, the division into superior and inferior castes is not attended in Hindoostan with any feeling of humiliation on the part of the latter. Every caste, and subdivision of a caste, forms a little distinct society in the general community. Its members enjoy the sense of equality among themselves, while their position, in all respects, toward the other members of the general community, is determined before their birth. The divine origin of castes being universally admitted, there is no ground for personal animosity. The members of the higher castes feel no malice or pity for, but rather indifference toward those of the lower; nor the latter any envy or hatred of the former. Each caste has peculiar notions of purity and uncleanness by which their manner of living and general conduct is regulated.

39. The institution of caste, thus arbitrarily stereotyped upon the Hindoos, has produced a multitude of monstrous anomalies, which pervade the whole framework of society in India. In one caste, and one alone, the females are permitted to cohabit or form matrimonial alliances with foreigners; from another caste, a certain portion of the females, regarded as incapable of marriage, are contributed to be brought up as bayaderes, nautch or dancing-girls in the Brahminical temples, where they minister to the appetites of the priesthood. Some of the population, following the destinies which their descent has marked out for them, have become illustrious as thieves, highwaymen or professional assassins, without thereby losing consideration or respect from their compatriots. Among these the Thugs have been the most conspicuous; they are robbers, united by religious or superstitious ties, who mainly subsist by strangling and plundering travelers.

40. The Hindoos mostly burn their dead; but some, like the aboriginal tribes, practice burial; in other castes, the dead are consigned to the waters of the Ganges or other rivers; and in some districts, as Bahar, persons when about to die are turned into the open air, and exposed to any weather. Slavery is very general, as is inheritance by adoption. On the Malabar coast, in southwestern India, sovereignties, property, etc., descend in the female line, so that not a man's own children, but his sister's or those of his nearest female relative become his heirs. But despite of all sorts of incongruities in the Hindoo social system, the internal government of the villages and communities is remarkable for its perfect organization and adaptation to the requirements of the people. India is, in fact, a land of contradictions; and the most childlike inanity and consummate wisdom are to be met with in its institutions side by side.

41. Buddhism, which now prevails over all central and eastern Asia, appears to have originated in Hindoostan, but it is now all but extinct there. Various traces, however, exist of its former supremacy, especially at Budda-Gaya, in Bahar, in the cave temples of India, and even at the temple of Juggernaut, which is resorted to by vast numbers of Brahminical pilgrims, but within the precincts of which no recognition of caste exists—a distinguishing characteristic of the Buddhist faith.

42. The Jains, a numerous sect, inhabiting the western part of the peninsula, especially Goojerat, Candeish, etc., are supposed to have been an offset of the Buddhists at the time that Buddhism was extirpated in Hindoostan; they, also, do not recognize caste, and, with the addition of worshiping a small number of deified saints, their form of religion presents some striking similarities to that of Buddhism.

43. The Seik or Sikh religion is confined to the Punjab and adjacent territories; it is an heretical form of the Brahminical religion, which originated in the fifteenth century, and its chief characteristics are, perhaps, the intolerance of its followers, and their perfect abstinence from eating the flesh of the cow.

44. The Mohammedans, who form about one fifteenth of the entire population of India, are of Afghan, Persian, Turk, Belooch, and Arabic origin, being the descendants of the numerous invaders who have entered Hindoostan from the northwest since the commencement of the eleventh century. Singular to say, they are not most numerous around Delhi, Agra, etc., which were the chief seats of the Moslem empire in India; but in many parts of Bengal, which was at the extremity of that dominion, they constitute the majority of the inhabitants, and the same is the case in various parts of the Deccan.

45. At Bombay, Surat, etc., Parsees are numerous; they are the descendants of the ancient Persians, expelled from the table-land of Iran at the Mohammedan conquest of Persia, and preserve the worship of fire and the sun, with other ancient customs, in great purity; they are mercantile, industrious, often learned, and many of them are among the opulent individuals of India. In the south of the peninsula are a great number of native Christians; in many localities they predominate, in point of numbers, over the rest of the population, particularly on the coasts, where they are chiefly engaged in fishing and maritime traffic. They are partly Nestorians or of the Syrian Church, the doctrines of which appear to have been introduced into India in nearly the earliest ages of Christianity, and partly Roman Catholics, especially on the Coromandel coast. Abyssinians in Goojerat, Armenians, Jews, Tartars, some Malays, and Europeans of various nations, with a considerable number of native descendants of Portuguese settlers, make up nearly the remainder of the motley population of India.

46. The Assyrians under Semiramis, and the Persians under Darius, are said to have penetrated into the northwest part of this region, but the information we have respecting their expedition thither is very fragmentary; and the earliest details giving any connected account of Hindoostan are those by the historians of Alexander. This conqueror traversed the Punjab, but did not establish any permanent dominion beyond the Indus. Seleucus Nicator, one of his successors, is believed to have advanced with an army into the heart of India, against Sandracottus (Chandragupta), and he afterward sent Megasthenes on an embassy to that sovereign, at his capital, Palibothra, which is conjectured to have been either Patna or Bhaugulpoor. The Greek monarchs of Bactria appear really to have pushed their conquests into India, and subsequently the Parthians and Scythians. The author of the Periplus of the Erythrean Sea, and Pliny, give some descriptions of the west coast of India; but from the decline of the Roman Empire, a lapse of many centuries occurs before we arrive at any further authentic information concerning the countries beyond the Persian desert.

47. The modern history of Hindoostan commences with A. D. 1000, when Mohammed of Ghuznee, a Mohammedan sovereign, whose dominions reached from the Indian Ocean to the Caspian, made the first of his 13 successful expeditions into Hindoostan, which region he penetrated as far as Kanoje, Bundelcund, and Goojerat.

48. In 1174, the Ghuznevide dynasty was overturned by Mohammed of Ghore, who also invaded India on several occasions, and whose successor, Cuttub, in 1215, founded the Patan or Afghan sovereignty, which had its seat at Delhi. The Patan dynasty lasted till 1525, and, during its continuance, Hindoostan suffered from the successive devastations of Genghis Khan and Timour.

49. Baber, a descendant of Timour, in 1526, established the Mogul dynasty; of which, after himself, Akbar, Jehangire, Shah Jehan, and Aurengzebe, were the most celebrated sovereigns. In the time of Aurengzebe, the Mogul dominion had reached its culminating point, and in his reign the Mohammedan conquest of the Deccan was achieved; but his rule was disturbed by the rise of the Mahratta power under Sevajee, and after the death of his successor, Shah Allum, in 1713, the Mogul sovereignty rapidly waned into decrepitude. The Nizam, and other viceroys of the empire, then founded for themselves independent kingdoms in different parts of India, which were soon afterward devastated by the incursions of Nadir Shah, and a fresh invasion of Afghans. Meanwhile that the foregoing dynasties ruled in Hindoostan, southern India was long the seat of several independent Hindoo sovereignties; the principal of which were Bejapoor and Bijnagur, but which were successively conquered by the Mohammedans.

50. Twenty-seven years before the foundation of the Mogul empire by Baber, the Portuguese under Vasco de Gama, in 1498, arrived at Calicut, which was then governed by a prince named the Zamorin. Within a short period they had possessed themselves of Goa, Diu, and other places on the west side of India, the trade of which coast was for a period wholly under their control. They were followed by the Dutch, who, however, nearly confined themselves to trading with India, and never made any important settlement on its soil. In the eighteenth century the French found means to establish colonies, chiefly on the east side of India; but before the termination of that century their progress toward domination in India was checked,

and early in the present century their influence over Indian politics and native sovereignties was thoroughly destroyed by the British, the rise of whose power exhibits one of the most wonderful political and moral problems of any age or nation.

51. About two thirds of the entire territory of Hindoostan is now under direct British rule, and the greater portion of the remainder is more or less subject to the sway or sovereignty of that nation, under the title of "protected states." Only the small northern states of Nepaul and Bootan are entirely independent, and the French and Portuguese have some small settlements along the coasts of the peninsula. Thus with trifling exceptions the whole of Hindoostan is more or less dependent and tributary; and the day is not very distant when the native rule will be entirely extinguished. These several governments will be separately alluded to in the ensuing chapters.

BRITISH POSSESSIONS IN HINDOOSTAN.

52. HINDOOSTAN, as before observed, is almost wholly under British subjection, direct or indirect. The exceptions are the small native states of Bootan and Nepaul, lying along the southern slope and base of the Himalaya Mountains, and the still smaller dependencies of France and Portugal on the coasts. What is termed British India, however, has a more extensive signification, comprising not only the British Possessions in Hindoostan, to which the present chapter is solely related, but also including extensive territories in Farther India, known as the Burmese Cessions and the Straits Settlements, extending along the western coast of that peninsula and terminating at Singapore, an island off its most southern point. Including these, British India has a total area estimated at 1,481,702 square miles, and of this vast extent of territory the proportion due to Hindoostan is 1,379,377 square miles. In the latter estimate, however, are included Assam, Cashar, Jynteah, etc., geographically portions of Farther India, but politically connected with the Presidency of Bengal.

53. The following table exhibits the area and population of the several governments directed by the British, and of the native states dependent on or subordinate to them:

Governments.	Area, sq. m.	Population.	Old Provinces.
Bengal Presidency	287,328	49,855,137	Bengal, Bahar, Orissa, Gundwana, Dacca, Assam, etc.
Northwestern Provinces	85,571	30,872,766	Benares, Allahabad, Bareilly, Agra, Oude, Meerut, etc.
Punjab and Trans-Indus	78,447	9,153,209	Lahore, Moultan, etc.
Oude	23,738	2,970,000	Oude, etc.
Madras Presidency	144,889	22,301,697	Circars, Balaghaut, Malabar, Carnatic, Canara, Coimbatore, etc.
Bombay Presidency (with Scinde and Sattara)	121,794	11,109,067	Konkan, Arungabad, Bejapoor, Candeish, Goojerat, Scinde, Sattara, etc.
Total under direct British rule	741,767	126,261,876	
States subordinate to the Bengal Presidencies:			
* Hyderabad (the Nizam)	95,337	10,666,080	Hyderabad, Aurungabad, Beeder, Bejapoor, etc.
‡‖ Berar or Nagpoor	76,432	4,650,000	Berar, Gundwana.
‖‡ Gwalior (Scindia)	33,119	3,228,512	Malwa, Agra, etc.
¶‡ Bundelcund States and Saugur and Nerbudda chiefships	56,311	5,871,112	Malwa, Allahabad, etc.
‖‡ Indore (Holkar), Burwannee Dhar, Dewass, Jabooa, etc.	15,630	1,415,200	Malwa, Candeish, etc.
* Bhopaul, Rajghur, etc.	8,312	815,360	Malwa, Bhopaul, etc.
¶‡ Rajpoot States, Joudpoor, Jeypoor, Odeypoor, Bhurtpoor, Bikaneer, Alwur, etc.	119,859	8,745,098	Malwa, Rajpootana, etc.
‡§ Rampoor, Delhi tributaries and Hill States (Himalaya)	13,572	1,211,407	Delhi, Kumaon, etc.
§ Sikh protected States	6,746	1,005,154	Delhi, etc.
‡ Southwest frontier States	25,431	1,245,655	Malwa, Allahabad, Gundwana, etc.
† Sikkim	2,504	92,648	North frontier.
‡ Bahawulpoor	20,003	600,000	Mooltan, etc.
§ Cashmere (Gholab Singh)	25,123	750,000	Cashmere, etc.
† Northeast frontier States	7,711	231,605	Assam, etc.
† Munneepoor	7,584	75,840	Munneepoor.
‡ Cuttack Mehals	16,929 — 530,653	761,005 — 41,365,476	Orissa.
States subordinate to Madras:			
‡ Mysore	30,886	3,000,000	Mysore.
‡ Travancore	4,722	1,011,824	Travancore.
‡ Cochin	1,988	288,176	Malabar.
‡ Jeypoor and Hill Zemindars	13,041 — 50,637	391,280 — 41,356,476	Balaghaut, Bejapoor.
States subordinate to Bombay:			
‡ Baroda (Guicowar)	4,399	325,526	Goojerat.
‡ Kattywar chiefships	19,850	1,463,000	Goojerat.
‡ Pahlunpoor chiefships	5,250	383,500	Pahlunpoor.
‡ Cambay, Daung rajahs, etc.	3,308	244,792	Goojerat.
‖‡ Kolapoor	3,445	500,000	Bejapoor.
‖‡ Sawunt Warree and Myhee, etc.	9,529	765,946	Bejapoor.
* Cutch	6,764	500,536	Cutch.
‡ South Mahratta, Jaghiredars, etc.	3,775 — 56,320	419,025 — 4,612,325	Bejapoor.
Total dependent States	637,610	50,669,031	
Grand total of British Hindoostan	1,379,377	176,930,907	

54. The "dependent states" named in the foregoing table have all relinquished relations with each other, and with any but the paramount British state, to which they are bound by alliances of various kinds. Some have treaties offensive and defensive, and the right to claim protection external and internal from the British Indian government, which has a right on its part to interfere in their internal affairs; others have similar right to claim protection and the aid of troops from the Indian government, which has, however, no right to interfere in their internal affairs, while others are simply tributaries. In many instances a failure in the direct line of succession causes a lapse of such governments into the hands of the British powers, as was the case with Berar; and the same occurs by breach of treaties, or on account of corrupt or incompetent administration by the native authorities, as in the case of Oude. The rapid absorption of the native states by whatever means, indeed, is too apparent; nor is it denied nor apologized for, that but a few years must elapse before the whole of this immense and populous country will belong in direct sovereignty to the British, either under the title of East India Company or as a direct appanage of the crown.

55. The government of British India is vested in a chartered company, as trustee for the crown, subordinate to a Board of Control consisting of six members, but the chief authority of which is exercised by a cabinet minister, namely, the Secretary of State for India. The local government, which has its imperial seat in Bengal, consists of a governor-general and a council. The governor-general is nominated by the Court of Directors, his appointment being subject to the approval of the crown. He has power to declare war, conclude peace, and make treaties of commerce and alliance, and is emphatically a viceroy. In conjunction



GOVERNMENT-HOUSE AND TREASURY, CALCUTTA.

with his council, of which he is president, he makes laws and regulations which have force throughout the whole of the territories of British India, and among all the servants of the Company within the dominions of the native princes. The governor-general is governor and the supreme council is council of Bengal Presidency. The presidencies of Madras and Bombay have each a separate governor and council. The affairs of the Northwest Provinces, the Punjab, etc., are administered by lieutenant-governors or residents, and are under the supreme cognizance of the governor-general.

56. Previous to the Sepoy rebellion, in 1856–7, the armed forces, European and native, consisted of 300,604 men and 6,215 officers of all arms, with 516 guns. The organization and disposition of this force, in 1855, was as follows:

	Cavalry Regiments. Royal.	Native.	Irregular.	Infantry Regiments. Royal.	Europ.	Native.	Irregular.	Artillery Battalions. Horse. Europ.	Horse. Native.	Foot. Europ.	Foot. Native.	Officers.
Bengal and N.W. Prov.	1	10	31	14	3	74	41	9	4	6	3	2,007
Madras	—	8	4	4	3	52	6	6	—	4	2	2,019
Bombay, etc.	1	3	6	4	3	29	8	4	—	2	2	1,289
Total	2	21	41	22	9	155	55	19	4	12	7	6,215
Men	1,400	24,450	23,780	24,200	9,000	170,000	51,150	2,660	400	4,044	4,480	
	84,630			254,350				11,584				

—making a total of 306,819 men and officers, and including 17,004 Lascars, etc., in the Company's service, 323,823 men of all arms. Since the rebellion above spoken of, the great body of native troops has been disbanded and replaced by Europeans.

57. The Anglo-Indian navy, in the same year, consisted of 43 vessels, of which 23 were steamers ranging from 10 to 700 and in all 4,880 horse-power, and from 40 to 1,800 and in all 16,574 tons burden, and carrying 80 guns; and 20 were sailing vessels, in all 5,004 tons, and carrying 81 guns. Of the steamers, two were of 700, two of 500, one of 350, one of 300, one of 280, two of 230, and two of 220 horse-power, with a tonnage ranging from 700 to 1,800 tons each. Sections of the royal navy are also stationed in the Indian seas.

58. The receipts and expenditures (sterling) of the Indian government, for the year ending April 30, 1855, and the amount of debt on which interest was payable at that date, are stated in the following summary:

	Receipts (gross).	Expenditures.	Debt.	Annual Interest.
Bengal	£10,960,635	£12,861,076	£45,278,587	£1,877,586
Northwest Provinces	5,863,376	2,111,512	266,531	13,139
Punjab and Trans-Indus	1,226,011	1,345,395	—	—
Madras	4,621,262	5,081,594	1,389,298	66,417
Bombay, etc.	4,640,951	4,608,287	1,536,516	81,710
Total	£27,312,235	£26,007,864	£48,389,932	£2,038,852

To the expenditures must be added £3,011,735, the sum disbursed in England, which makes the whole expenditures to £29,019,599, showing a deficit in the receipts amounting to £1,707,364. Of the revenue, about 65 per cent. is derived from the tax on lands, 7 per cent. from customs, 12 per cent. from the tax on salt, and 17 per cent. from the opium tax. The average cost of collection is about 25 per cent.

59. The value of the external commerce of British India, for the year 1853, is given in the following table:

	Merchandise. Exported.	Imported.	Treasure. Exported.	Imported.	Total. Exported.	Imported.
Bengal	£10,738,555	£4,993,675	£476,375	£3,393,987	£11,214,930	£8,387,662
Madras	2,121,614	840,532	36,382	576,854	2,157,996	1,417,386
Bombay	7,604,464	4,256,656	542,473	2,860,536	8,146,937	7,097,192
Total	£20,464,633	£10,070,873	£1,055,230	£6,831,377	£21,519,863	£16,902,240
Total in the year 1843					13,767,621	11,046,894

The principal articles of agriculture exported and their values were: opium £7,034,075, cotton £4,518,534, indigo £1,809,685, sugar and rum £1,752,640, grain £889,040, hemp, gunny, jute, and oil-seeds £823,866, lac £150,680, coffee £97,490, oils £90,039, safflower £61,556, tea £58,178, pepper £28,238, and spices, gums, etc., £170,112—making a total value of agricultural products exported, in 1853, £17,484,133, or more than four fifths of the entire value of the Indian exports. The other exports, exclusive of treasure, consisted of wool, shawls, silk, saltpeter, tin, etc.

60. With regard to means of internal communication, British India is notoriously deficient, and much remains to be done before the country can become developed to that extent at which the governing power is now aiming to attain. Still, much has already been effected, and especially of late years vast works have been commenced which in the ultimate will realize to industry immense advantages. The principal canals are those of the Jumna and the Ganges, which with their branches are 580 and 900 miles in length. In the Punjab there are 450 miles of canal, and others in Madras and Bombay. These are mainly used and relied on for irrigation. Steam-navigation has been introduced on the Indus and Ganges and other chief rivers, and will doubtlessly be largely extended. With regard to railroads, nothing like

☞ The following note-marks refer to the ruling dynasties in the several states—* Mohammedan, † Buddhist, ‡ Hindoo, § Sikh, ‖ Mahratta, and ¶ Rajpoot.

a system has been devised; but there are several great lines in progress and partially completed. The principal, as existing in 1855, were as follows:

Lines.	Distance Miles.	Miles Completed.
From Calcutta to Delhi	1,100	120
" Bombay to Mirzapore	750	49*
" " to Madras	300	71*
" " to Baroda	150	—
From Madras to Bellary	296	—
" " to west coast	300	90
Total	2,896	298

—these lines have hitherto cost from £8,000 to £11,000 per mile. From these, lines will diverge to the neighboring districts. Nor have the ordinary highways been neglected: since 1836 the government has constructed three grand trunk roads of this description, viz., from Calcutta to Peshawur 1,423 miles, at a cost of £1,423,000; from Calcutta to Bombay 1,002 miles, at a cost of £500,000; and from Bombay to Agra 734 miles, at a cost of £243,676. For the past 15 years, from 1837 to 1852, the average annual expenditures upon public works was £299,732. In this are comprised roads, bridges, embankments, canals, tanks, and all works of irrigation; but since 1852 the outlay has been much greater, including large sums spent upon the Ganges and Punjab canals, and the guaranteed interest upon the Indian Railroad stock, which must be regarded as a contribution to public works. The electric telegraph, in 1855, was open through a length of 4,000 miles, and of this length 3,050 miles had been set up in the previous fifteen months.

1. PRESIDENCY OF BENGAL.

61. Bengal, the most extensive of the presidencies, occupies about two thirds the whole area of British India, spreading over the northern and central parts of Hindoostan and into India-beyond-the-Ganges. The main territory lies between latitudes 17° 30′ and 31° 40′ north, and longitudes 69° 50′ and 91° 30′ east; and is bounded north by the Himalaya range and the independent states of Nepaul and Bootan; east by the Burmese Empire and the Bay of Bengal; south by Madras; west by Bombay and Scinde, and northwest by the Northwest Provinces, etc.

62. The area and population of the several divisions of this great region are as follows:

Divisions.	Area, sq. m.	Population.	Chief Places.	Popula.
Calcutta	37,546	11,298,752	Calcutta	400,000
Bahar or Patna	47,125	8,795,298	Patna	300,000
Moorshedabad	35,659	10,759,812	Moorshedabad	160,000
Dacca	29,010	8,059,279	Dacca	200,000
Southwest ceded districts	109,488	8,727,456	Cuttack	40,000
Assam, Cachar, Jynteah, etc.	28,550	2,214,540	Ghergong	30,000
Total	287,328	49,855,137		
Dependent States	530,653	41,365,476		
Grand total	817,961	91,220,613		

63. The greater portion of the Bengal Presidency consists of the immense plain or valley of the Ganges. To the north, this plain rises into the mountainous region of Kumaon, and on the south are the Vindhyan Mountains and the table-land of central India. The river Ganges flows in a southeast direction through the whole extent of the Presidency, and is joined in its course by numerous tributaries, of which the Jumna, Chumbul, Goggra, Gunduck, and Sone are the most considerable. The eastern division of the country is traversed by the Brahmapootra, which discharges its waters into the Bay of Bengal, near the confluence of the Ganges. Both these great rivers divide into numerous branches before reaching the sea, and their united deltas form a tract of rich alluvial soil exceeding 30,000 square miles in extent. The country is almost entirely destitute of inland lakes; but in the lower districts there are numerous lagoons and marshes.

64. The hottest, most unhealthy, and inhospitable parts are the low lands of the deltas, called the "Sunderbunds" (from being covered with the soondru or sunder-tree). This district is traversed in all directions by water-courses and interspersed with stagnant pools. The

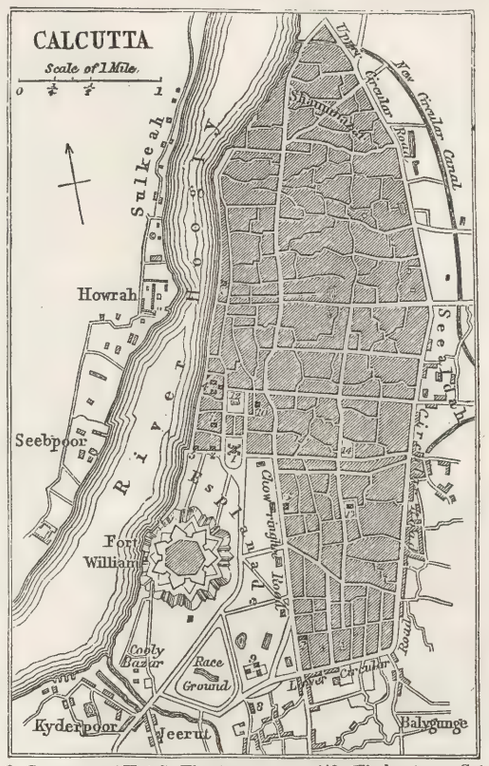


TIGER-HUNTING IN BENGAL.

rainy season commences in June and continues to the end of October. The annual fall of rain is from 70 to 80 inches. The winter or cold season lasts from November to the middle of February, when the hot season begins and lasts to the middle of June. The chief products are rice, wheat and barley, indigo, opium, cotton, coffee, pepper, tobacco. The cultivation of cotton is being rapidly extended. The forests contain teak, saul, sissoo, banyan, ebony, oak, and pine timber, with rattans, bamboos, cocoa, areca, and other palms, etc.

65. Manufactures, though still general, are of less consequence than formerly, and of late years, especially in the department of textile fabrics, have been, to a great extent, superseded by the machine-made goods of Britain. Muslins, cotton piece goods, diapers, sail-cloths, chintzes, silks, calicoes, blankets, and other woven goods are the staples produced. The finest muslins are made at Dacca. The natives are also skillful in the working of gold and silver, and excel in many other departments of industry. Bengal has a various and extensive trade. Its chief exports consist of silk and its manufactures, cotton, indigo, opium, saltpeter, lac dye, etc. The interior trade is immense.

66. Calcutta, the capital of British India and of the Bengal Presidency, is situated on the east bank of the Hoogly River, about 100 miles from the sea, in latitude 22° 33′, and longitude 88° 19′. The city and suburbs extend along the river more than six miles, and are fronted by a fine quay, along which ships of 600 tons discharge and receive their cargoes. It is a strongly fortified place, and requires 12,000 to 15,000 men to man its works. The parts occupied by Europeans consist of handsome detached houses, but in the native portion of the town the streets (or rather lanes) are narrow, crowded, and dirty. The markets are extensive, and are supplied with abundance of fruit and vegetables, etc. The residence of the governor, called Fort William, is a building of vast extent, near the banks of the river, and toward the southern extremity of the town. Calcutta is the principal port, and here centers the great bulk of the foreign commerce of the country.

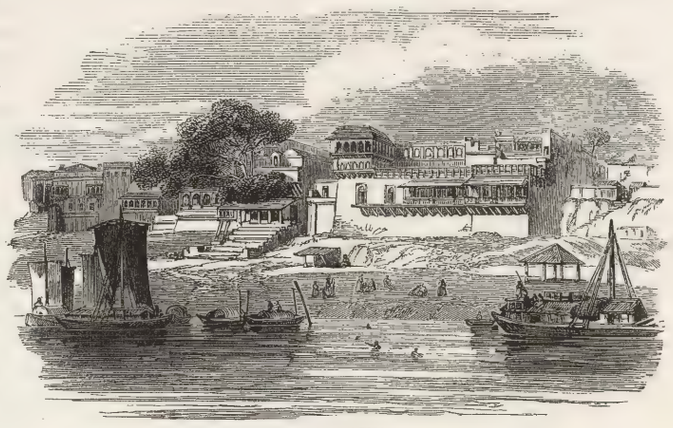


1. Government Ho
2. Town Hall.
3. Mint.
4. Custom House.
5. Supreme Court.
6. Post Office.
7. Theater.
8. General Hospital.
9. Jail.
10. Mission Church.
11. Cathedral.
12. Principal Square.
13. Hindoostanee Col.
14. Wellington Square
15. Chittapore Road.
16. Machooleh Baz. St
17. Boitacannah "
18. Wellesley Street.

67. Ten miles above Calcutta is Barrackpoor, the head-quarters of the troops, and on the opposite bank of the Hoogly is Serampore (population 15,000), the former residence of the Danish governor-general of India, but since 1845 a British possession. It is the seat of a Baptist missionary press, from which numerous translations of the Scriptures have been issued. A few miles higher up is Chandernagore, a small French settlement; and farther to the northward is the small town of Plassy, the site of Lord Clive's famous victory in 1757. Still higher up, and at a distance of 120 miles from Calcutta, is Moorshedabad, the capital of one of the divisions of the Presidency, a large native town, with considerable manufactures of silks, carpets, embroidery, etc.

68. Dacca, situated 150 miles to the northeast of Calcutta, on an arm of the Brahmapootra, was formerly the principal seat of the native manufactures of muslin and light cotton fabrics, but it is now greatly decayed. In the southeast, lying beyond the Brahmapootra, is Islamabad or Chittagong, situated in a hilly district, and a place of considerable trade.

69. Patna is a large and wealthy town on the south bank of the Ganges. Bahar, to the south of the river, is now of little importance. Sixty miles south-by-west of Patna is Gaya, a celebrated place of native pilgrimage, and believed to have been the birth-place of Boodh or Buddh, the founder of the Buddhist religion.



CITY OF PATNA.

70. In the southwest the chief town is Cuttack, on a branch of the Mahanuddy. Pooree or Juggernaut, on the coast to the south, at the mouth of one of the arms of the river, has 30,000 inhabitants, and derives celebrity from its containing the great temple of Juggernaut, where many of the most superstitious rites of the Hindoos are preached at the annual festivals held in honor of the idol, when crowds of pilgrims assemble on the occasion. Pooree is resorted to by Europeans on account of its healthy climate and cool sea-breezes. To the northeast of Cuttack is Balasore, a flourishing port situated a short distance from the coast, on the banks of a river navigable for small vessels.

2. NORTHWEST PROVINCES.

71. The upper or Northwest Provinces or government of Agra extends west from Bengal Presidency as far as the Punjab, and north to the Hill States of the Himalayas, and includes the six regulation districts of Agra, Allahabad, Benares, Delhi, Meerut, and Rohilcund, and seven non-regulation districts (Kumaon, Gurhwal, and other Hill States)—the whole including an area of 85,571 square miles.

72. The following table exhibits the area, population, etc., of the districts comprised within this government:

Districts.	Area, sq. m.	Population.	Districts and Towns.
Agra	9,059	3,296,757	Muttra, Agra, Ferrukabad, Mynpoorie, Etawah.
Allahabad	11,830	4,446,853	Cawnpoor, Futtehpoor, Humeepoor and Calpee, Bandah, Allahabad.
Benares	17,490	6,390,970	Goruckpoor, Azimghur, Jounpoor, Mirzapoor, Benares, Ghazepoor.
Delhi	8,305	2,488,556	Paneeput, Hurreeannah, Delhi, Rohtuck, Goorgaon.
Meerut	10,118	3,984,439	Saharunpoor, Mozuffernuggur, Meerut, Boolundshahur, Alighur.
Rohilcund	12,659	4,876,198	Bijnour, Moradabad, Budaon, Bareily, Shahjehanpoor.
7 non-regulation Districts.	16,110	5,388,993	Kumaon, Gurhwal, etc.

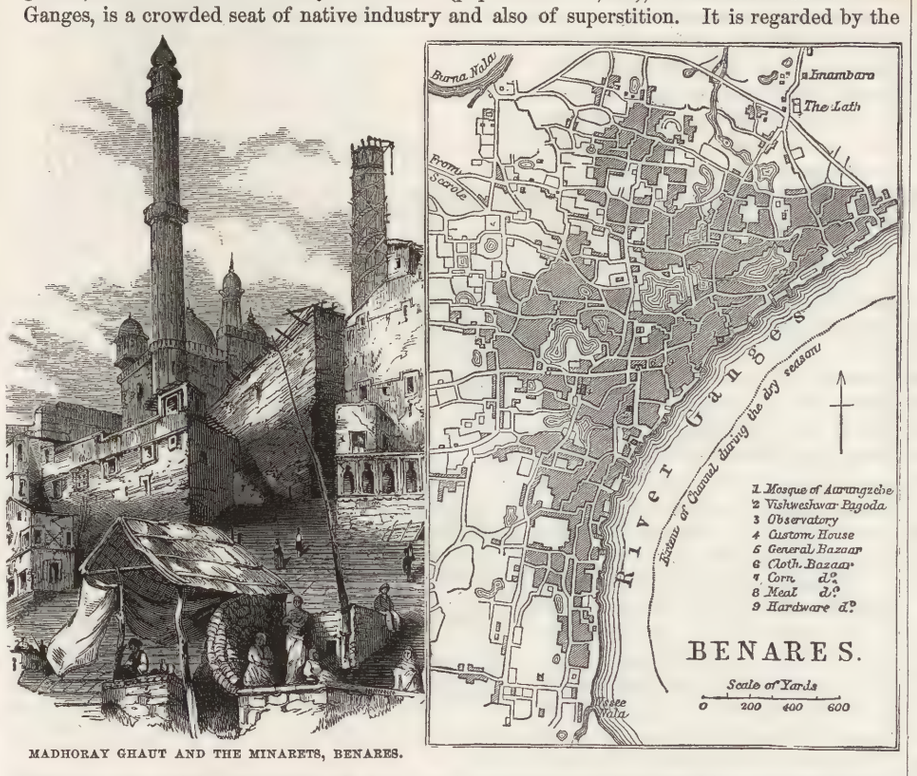
—making a total population of 30,872,766 or 360.8 persons to the square mile of territory.

73. These provinces occupy chiefly the valley of the upper Ganges and that of its tributaries the Jumna, with the Doab or country intermediate, commencing about 85° east longitude and extending westward about ten degrees, and northward to the crest of the Himalayas. The surface slopes rapidly, descending from northwest to southeast, and consequently running

* Of the railroads from Bombay to Mirzapore and Madras 32 miles are common to both lines.

water is soon drained off and the country left dry; and as the heat is less intense and continuous the vegetation differs widely from that of the lower plain. The winter crops resemble those of temperate regions, consisting chiefly of wheat, barley, oats, and millet, also tobacco, flax, and hemp. The summer crops which grow during the rainy season are rice, cotton, indigo, etc. In the north the palm-tree disappears; but the European fruit-trees grow together with bananas, custard apples, and fruits which have been transplanted from China.

74. Benares, the most eastern part of the government, produces large quantities of indigo, sugar, and opium; and in many of the towns there are extensive manufactures of muslins, gauzes, and brocades. The city of Benares (population 600,000), on the north bank of the Ganges, is a crowded seat of native industry and also of superstition. It is regarded by the



MADHORAY GHAUT AND THE MINARETS, BENARES.

Hindoos as one of their most sacred places, and its temples are frequented by numerous priests and crowded with swarms of devotees and pilgrims. The river trade of the city, and indeed of the whole province, is immense. The great commercial town of Mirzapoor (population 250,000), between Allahabad and Benares, is the chief market for silk and cotton.

75. Allahabad, westward of Benares, includes the country watered by the lower course of the Jumna above its junction with the Ganges as well as the districts on either side of the latter river. It is one of the most populous and productive provinces of British India; wheat, cotton, and indigo are the principal crops; and sugar, opium, and saltpeter are also produced. In the southwest, toward the Vindhya Mountains, is the hilly district of Bundelcund, formerly noted for its diamond mines. The most considerable towns are Allahabad and Cawnpoor. Allahabad (population 65,000) is situated at the junction of the Ganges and Jumna, and is hence regarded by the natives as a sacred spot, and is the resort of crowds of pilgrims who come to bathe in the united stream. Cawnpoor, on the west bank of the upper Ganges, is one of the principal military stations in India.

76. Agra, to the west-southwest of Allahabad, includes the southern part of the "Doab" (or country between the Ganges and Jumna), as well as an extensive tract to the westward of the Jumna, and watered by its tributary the Chumbul. Indigo is extensively produced, as well as tobacco, cotton, and sugar. The chief towns are—Agra (population 100,000), on the



TAJ-MEHAL, AGRA.

right bank of the Jumna, which is the seat of a considerable inland trade, and—Muttra, an ancient Hindoo city, higher up the same river. Six miles north of Agra is the large village of Secundra, which contains the splendid tomb of the emperor Akhbar, the greatest of the Mogul sovereigns. The town of Bhurtpoor, within the limits of this province, and 31 miles northwest of Agra, is under the government of a native rajah. Ajmeer, 220 miles to the southwest of Agra, and in the province of Rajpootana, is the capital of a detached district of the same name, which forms a part of the British territory. It is one of the most flourishing places in northern India, and the residence of numerous wealthy merchants.

77. Delhi, to the northward of Agra, embraces the upper part of the country between the Ganges and the Jumna, as well as an extensive tract to the west of the latter river extending toward the borders of the Great Desert and the country watered by the Sutlej. Great part of the soil is arid and sandy, and the western portion of the province suffers from want of water; but many canals have been made from the Jumna for the purposes of irrigation. The tract lying to the westward produces barley, wheat, and other grains, and to the eastward sugar and cotton are grown. The city of Delhi (pop. 200,000) lies on the right bank of the Jumna, though extensive remains of the more ancient city are found on the opposite bank. Delhi was capital of the Mogul sovereigns, and contains numerous mosques, palaces, and other splendid works. It has some manufactures of cotton-cloths, shawls, and jewelry, with considerable trade. The royal family of Delhi, the last representatives of the Mogul dynasty, was entirely extirpated on account of its complicity in the late rebellion. Paneeput, a small town to the northward of Delhi, is famous in Indian history as the scene of two great battles—the first, in 1545, between the native sovereign of Delhi and the founder of the Mogul Empire, and—the other, in 1761, between the king of Cabool and the Mahratta chieftains.



PALACE OF THE KING, DELHI.

78. Meerut is a large province lying chiefly between the Ganges and Jumna, and eastward of Delhi. Meerut, the principal city, is an ancient town, and an important military station. Hurdwar, a small town on the right bank of the Ganges, at the place where it issues from the mountains, is the seat of a great annual fair, to which myriads of pilgrims resort for the purpose of bathing in the waters of the sacred stream.

79. Rohilcund lies to the eastward of the upper Ganges, and is a large and very populous province. Its chief town is Bareily (population 100,000), which is the seat of one of the principal provincial courts of justice, and the judicial capital of the whole northwest government. The inhabitants are noted for their cutlery, brasswork, carpets, embroidery, and cabinet-work. Moradabad and Shahjehanpoor have also manufactures and considerable trade.

80. The mountain territory of Kumaon, Gurhwal, etc., extends from the summits of the Himalaya chain to the plains of northern Delhi and Rohilcund. In the less rugged parts wheat, rice, and hemp are grown, and the tea-plant is cultivated on the hill-sides. The chief town of Kumaon is Almora, which stands on the ridge 5,000 feet above the sea.

3. KINGDOM OF OUDE.

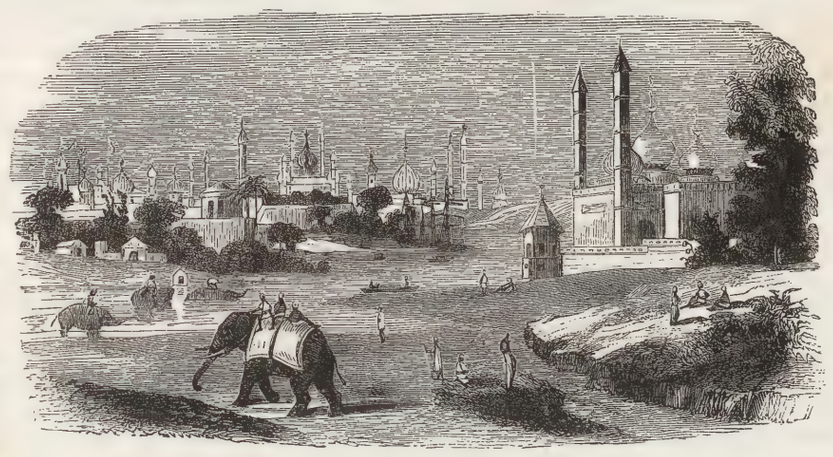
81. Oude, until lately a protected state, but since 1854, when the royal family was deposed, a province of British India, is wholly, except on the north where its boundary is coterminous with Nepaul, surrounded by the Northwestern Provinces, and lies between latitudes 25° 20′ and 30° north, and longitudes 79° 40′ and 82° 30′ east. Its length, north and south, is 230 miles, and its greatest breadth about 180 miles, and its area is estimated at 23,738 square miles.

82. The surface is mostly level and highly fertile, and is watered by the Goggra, Goomty, Sye, and other tributaries of the Ganges, all of which have a general southeast course. The Ganges itself forms nearly all its southern boundary. Wheat, barley, rice, sugar, indigo, and others of the richest products of India are raised in large quantities, and in some districts a vast amount of niter and other salts effloresce on the soil. Some parts of the country are in high and fine cultivation, but others are overgrown with jungle, and whole districts have been pauperized and depopulated through a long misgovernment, and on the whole the country presents an unfavorable contrast to the adjacent British territories.

83. Oude was formerly a Mogul province, having wider limits than the present kingdom. It became subordinate to the British after the battle of Calpee, in 1765. In 1801 there were annexed from this territory to the British dominions Goruckpoor and some other eastern districts. In 1819 the vizier threw off his nominal dependence on the Mogul sovereign and assumed the title of king. In 1854 the British took absolute possession of the country on account of the gross misgovernment of the native rulers.

84. The principal towns are Lucknow, Fyzabad, Oude, Baraitche, and Pertabghur. Lucknow, the capital, is situated on the right bank of the Goomty, in latitude 26° 53′, and longitude 80° 58′. Like all Eastern cities Lucknow has an imposing and picturesque appearance from a distance, with its innumerable minarets, gilded cupolas, and brilliantly colored sepulchers and mosques; but like them, also, fails to realize on near inspection the promises of the remoter view. It may be said to be divided into two portions—the court end and—the bazaar and mercantile, which is three or four miles in length and in some places nearly as much in breadth; but the streets are narrow and dirty, and the houses generally mean. In the better quarters it is otherwise: here the buildings are handsome and the streets broad and clean. Stately khans and handsome mosques and pagodas are numerous. With exception, however, of the royal tombs and the imaumbarah or cathedral, a beautiful structure, the principal edifices of the city are all of modern construction. The scenery around the city is very pleasing, especially along the banks of the Goomty. The river here exhibits a scene of great activity—traffic boats, small barks and fishing boats rowing to and fro in ceaseless succession. Between the city and the decaying country seat Constantia is the Delkuska Park, with an extensive menagerie; and about three miles distant is Baroun, a royal palace in the Grecian style.

85. Fyzabad, the ancient capital and such until 1774, is situated 65 miles east from Lucknow. It is still a city of considerable extent, and contains a numerous population. Oude, also an ancient capital, lies on both banks of the Goggra, 77 miles east from Lucknow. It is still a large and populous place, and greatly venerated by the Hindoos; but its ancient temples



CITY OF LUCKNOW.

are in ruins and its only structures deserving of notice are—a mosque (built by Aurungezebe), some Mohammedan tombs, and an iron bridge built with materials brought from England and lately erected across the river. Baraitche, 68 miles northwest from Oude, is a place of great antiquity, and is described by Abu Fazel in 1582 as a large city. Pertabghur is also much reduced from its former rank, and is now chiefly inhabited by an agricultural population.

4. PUNJAB AND TRANS-INDUS.

86. Punjab (Persian, the "five waters"), in the northwest of Hindoostan, and so-called from its position among five great affluents of the Indus, extends between latitudes 29° and 34°, and longitudes 71° and 78°, and is of a triangular shape, having its apex at the confluence of the Indus and the Punjnud (or union of the five waters). Area 78,447 square miles.

87. This country is bounded north by the Himalayas and west by the Khyber and Soliman ranges; and thus includes the main stream of the Indus. Its extreme northern portion is exceedingly mountainous, but with this exception the surface is, for the most part, an extensive plain, gradually sloping to the southwest, in the direction of the five rivers, by which it is so abundantly irrigated. These rivers are the Jhelum, Chenaub, Ravee, Beas, and Sutlej, the last named forming the eastern border; and these together furnish an aggregate navigation of 2,000 miles, dividing it at the same time into five doabs or districts.

88. Gold, antimony, plumbago, alum, sulphur, etc., are found in the hill country; niter abounds in the alluvial plains, and immense coal beds exist in the east bank of the Indus. The upper regions, close to the Himalayas, present occasionally beds of primary and secondary formation, and contain all but inexhaustible beds of fossil salt. The soil in the plains is generally fertile. The climate is hot and dry; and, except in the up country and under the influence of the southwest monsoon, little rain falls. The winters are comparatively cool.

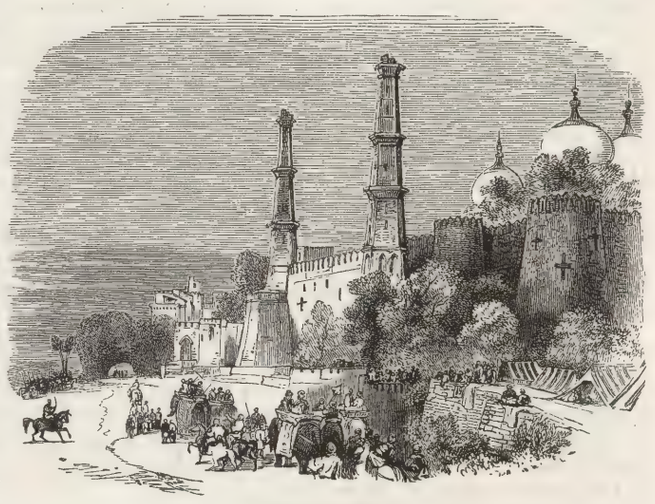
89. Vegetation bears a close resemblance to that of the plain of the Ganges. The principal grain crops are wheat, barley, buckwheat, millet, mustard, sesamum, etc.; and indigo, sugar, and tobacco are largely grown. Among the fruits are the date, orange, fig, vine, apple, mulberry, banana, and mango. Large trees are scarce, and extensive tracts are destitute of anything larger than mimosas, acacias, camel-thorns, and other bushes. A rich and more varied zoology, however, counterbalances the defects of its botany. All the wild animals of Hindoostan are here numerous. Elephants are sometimes used for burden, but commonly mules and asses. The rivers abound with alligators.

90. The population, about 9,153,209, is composed of various races, partly Afghans and Patans, holding the Mohammedan faith, and amounting to a fourth of the whole, but principally of Jat-Rajpoots and Cathis of Hindoo descent. The Khalsas or Sikhs proper, though the dominant race, comprise less than a fourth of the entire population, and reside chiefly between the Jhelum and Ravee. The Jats form the bulk of the agricultural peasantry; the Cathis are a pastoral people, and are tall and athletic, with open countenances, blue eyes, and light hair. The people, indeed, in physical respects, are superior to those of the peninsula. The women, too, are shapely and attractive. The Sikhs are almost exclusively a military and agricultural people, brave and hospitable, and barbarous only from want of knowledge. The Sikh religion is a heterodox form of Hindooism. The language of the Punjab is a jargon of various tongues; and while a dialect of Hindoostanee is spoken in the towns, the rural population use the Jatski, the original language of the country. On the south frontier there is a considerable mixture of Scindhi. Education is very general.

91. The manufacturing is far more extensive and important than the agricultural industry of the country. Amritser, Lahore, Mooltan, and Shoojabad are distinguished for their silk and cotton fabrics, and the shawls of Lahore compare well with those of Cashmere. Brocades, tissues, and carpets are also manufactured in the capital. In the east, about Rohun and Hooshyarpoor, excellent white cotton goods are manufactured; and the Sikhs have exhibited great excellence in their swords and fire-arms, which are chiefly from the armories of Lahore. The position of the Punjab secures to it a vast transit trade with Cabool, Bokhara, Candahar, etc., and also the enjoyment of a more direct trade in its own productions. This trade is facilitated by a fine system of rivers and by roads which cross the country.

92. The Sikh government was originally a sort of federation of Sirdars or chiefs, all holding independent sway, and administering the laws in their own districts. But these at length became subordinate to the Maharajah, under whom they became feudal chiefs. The present government resembles that existing in the other districts of Bengal, and is administered by a lieutenant-governor subordinate to the governor-general. For revenue purposes it is divided into the collectorates of Lahore, Mooltan, and Leia in the south, and Peshawur, Jhelum, and Hazara in the north. Nothing is taxed but salt.

93. The principal towns are Lahore, Amritser, Sirinagar, Mooltan, Peshawur, Julinder, Julalpoor, etc. Lahore, the capital, is built on an affluent of the Ravee, in latitude 31° 36′, and longitude 74° 18′, and contains between 100,000 and 120,000 inhabitants. It is inclosed by a double line of defenses, the outer of which is seven miles in circuit. The streets are narrow and filthy; the houses of brick, and lofty. It has many large and handsome mosques, and arouud it are extensive ruins, etc. Here, also, are many Hindoo temples well supplied markets, and a citadel containing the palace of the Sikh sovereigns. Amritser, 40 miles east of Lahore, is a compact city of 115,000 inhabitants. Its shops and bazaars exhibit in great abundance the richest products of India. The staple manufactures are shawls, inferior silks, and woolen and cotton goods.



ENTRY TO LAHORE.

94. Mooltan, 160 miles southwest Lahore, and about three miles from the left bank of the Chenaub, is surrounded by a dilapidated wall, three miles in circuit, and overlooked on the north by a fortress of some strength. The streets are narrow and the houses lofty gloomy structures of brick. The principal manufactures are silks, cottons, shawls, and other tissues. The bazaars are extensive. Mooltan has a large foreign trade with the countries west of the Indus. The vicinity is covered with a vast quantity of ruins of tombs, mosques, and shrines, and many fine gardens. Population 80,000. Peshawur, on the Afghan frontier, is a fortified city, and contains about 60,000 inhabitants. Julinder, between the Sutlej and Beas, 76 miles east Lahore, has 40,000 inhabitants. Julalpoor, on the Jhelum, 90 miles northwest of Lahore, is supposed to occupy the battle-field on which Alexander the Great and Porus contended. Shoojabad, 25 miles south of Mooltan, is a town of 10,000 inhabitants, and noted for its cottons and turned ware.

95. Up the south side of the Sutlej, and near the frontier above Lahore, are the two important military posts of Ferozepoor and Ludhiana. In the neighborhood of these places were fought (in the winter of 1845–6) the important battles of Moodkee, Ferozeshah, Aliwal, and Sobraon, by which the British became masters of the Punjab. Goojerat, the scene of a decisive victory gained by the British troops in the later Sikh campaign of 1848–9, is a small town situated to the northward of Lahore, and beyond the north bank of the Chenaub.

95. The Punjab was the scene of Alexander the Great's Oriental conquests. At the beginning of the tenth century it was overrun by Mohammed of Ghuznee, "the destroyer;" subsequently it was conquered by the Afghans, and in 1526 by Baber the Mogul conqueror. Under the late Runjeet Singh the power and boundaries of the kingdom were greatly extended; but on his death, in 1839, the country became the scene of anarchy. In 1845 the Sikhs invaded the British territories, which led to their defeat and submission in 1846. In 1849 the country was formally annexed to the Company's Indian empire.

5. PRESIDENCY OF MADRAS.

97. Madras is situated between latitudes 8° 5′ and 20° 12′ north, and longitudes 74° 20′ and 85° 12′ east. It is bounded north by Bengal and Bombay; and east, south, and west by the Indian Ocean; and comprises the larger portion of peninsular Hindoostan.

98. Madras is divided into 20 collectorates, viz.:

Collectorates.	Area, sq. m.	Population.	Collectorates.	Area, sq. m.	Population.
Ganjam	6,400	926,980	Kurnool	3,213	273,190
Vizagapatam	15,300	1,254,272	Cuddapah	12,970	1,451,921
Rajahmundry	5,050	1,012,036	Salem, with Vomundoor and Mullapandy	8,200	1,195,377
Masulipatam	5,000	520,866	Coimbatore	8,280	1,153,862
Guntoor and Palnaud	4,960	570,083	Trichinopoly	3,600	709,196
Nellore	7,930	935,690	Tanjore and Najore	3,900	1,676,086
Chingleput, Madras	3,020	583,462, 720,000	Madura and Dindigul	10,700	1,756,791
South Arcot and Cuddalore	7,610	1,006,005	Tinnivelly	5,700	1,269,216
North Arcot and Consoddy	5,790	1,485,873	Malabar	6,060	1,514,909
Ballary	13,056	1,229,599	Canara	7,720	1,056,333

—making a total area of 144,889 square miles, and an aggregate population of 22,301,697, or 153.9 to each square mile of territory. Exclusive of Madras, the population of which is assumed, the population, classed according to sex, religion, and industrial pursuits, is as follows:

Religion.	Agricultural. Males.	Agricultural. Females.	Non-agricultural. Males.	Non-agricultural. Females.	Aggregate. Males.	Aggregate. Females.
Hindoos	6,919,836	6,424,888	3,274,313	3,282,771	10,194,149	9,707,659
Mohammedans, etc.	439,063	409,154	433,927	417,745	852,990	826,899
Total	7,358,899	6,834,042	3,688,240	3,700,516	11,047,139	10,534,558
	14,192,941		7,388,756		21,581,697	

—total Hindoos 19,901,808, and Mohammedans, etc., 1,679,889. The subordinate states embrace 50,637 square miles, and 4,691,230 souls.

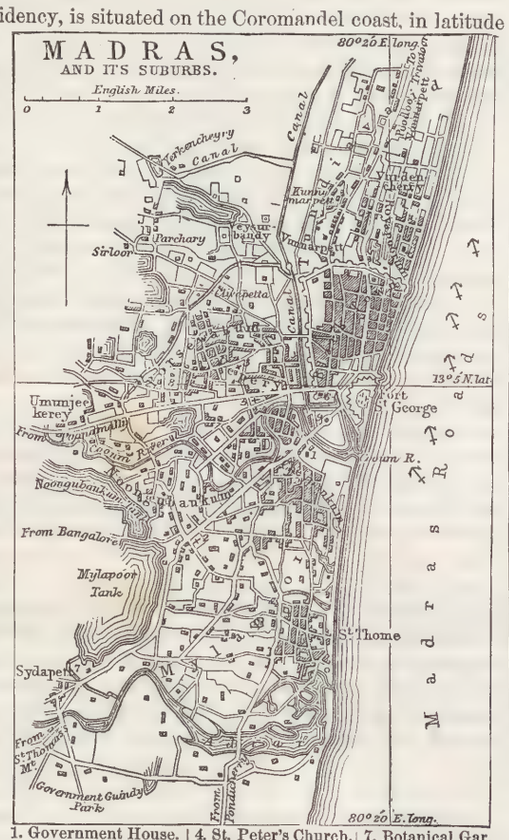
99. The central portion of Madras is occupied by a table-land, surrounded on all sides by an undulating or plain country, gradually decreasing in elevation as it approaches the sea; the whole inclosed, east, and west, and south, by three mountain ranges, called respectively the East and West Ghauts and the Nilgherry Mountains. The two former run parallel to the east and west coasts, while the third traverses the peninsula from southwest to northeast. The principal rivers are the Godavery and Kistnah with their tributaries; and the Pennar, Palar,

Punair, Cooleroon or Cavery, and Vighey. There are no lakes of any importance; but many salt lagoons or inlets of the sea.

100. The climate generally is reckoned the hottest in India; but differs widely in localities, according to elevation and exposure—passing from the low coasts, which are the hottest, through all the gradations of temperate regions, till on the tops of the Nilgherries the thermometer in the cold season falls to the freezing-point. The heat on the east side of the peninsula, where at the mouth of the Kistnah it has been known as high as 108° Fahr. at midnight, is much more excessive than at the west side; but even in the hottest places the air is cooled and the earth refreshed in May, June, and July by frequent showers or by torrents of rain. The soil along the coasts is, for the most part, light and sandy; inland it consists of a decomposed sienite, impregnated with salt, which, in the dry season, covers the ground with a saline efflorescence; still the district of Tanjore, on the banks of the Cooleroon, is esteemed the granary of south India. There are some extensive forests in the Presidency, yielding teak, ebony, and other valuable timber. The common agricultural products are rice, wheat, barley, maize, etc.; sugar-cane, areca, yam, plantain, mango, and other vegetables and fruits; ginger, tumeric, pepper, tobacco, hemp, and cotton. There are two kinds of sugar made in Madras: one from a species of date-tree and the other from cane—the former of inferior description.

101. In Madras, as elsewhere in India, the great body of the people are agriculturists. In the towns, however, trade and manufactures are flourishing, and cotton cloths were formerly manufactured here to a vast extent. This manufacture, however, has fallen before British competition; but still some little is made in the eastern districts, and the produce exported to the West Indies and America. Red cloths, muslins, carpets, and silks also continue to be manufactured to a limited extent. Iron, saltpeter, and salt are also important manufactures. The external commerce of Madras is inconsiderable.

102. Madras, the capital of the Presidency, is situated on the Coromandel coast, in latitude 13° 4′ 6″, and longitude 80° 14′; and on an open, sterile, and sandy shore, without a harbor or landing-place, and exposed to the sea-swell. The city with its suburbs covers 27 square miles. The public offices and storehouses are imposing structures. Fort St. George commands the Black or native Town, and may be considered the nucleus of the city. It contains a church, barracks, and arsenal with arms for 50,000 men. The government-house, the church of St. George, and some of the other public buildings, are handsome structures; there is also a college and medical school. The city is the seat of the chief authorities of the Presidency, of the supreme court, etc. It has some manufactures, and a considerable and improving commerce. The vicinity presents a strange contrast to the city, being a very garden up to its suburbs. Madras was founded in 1639, and soon became a flourishing city. In 1839 it contained 462,951 and in 1851 about 720,000 inhabitants.



1. Government House.
2. St. George's Cathed.
3. Vepery Mission Ch.
4. St. Peter's Church.
5. St. Andrew's Ch.
6. General Hospital.
7. Botanical Gar.
8. Lunatic Asyl.
9. Munroe's Statue.

103. Arcot, on the Palar, 65 miles southwest, consists of a fort surrounded by a town, and was formerly capital of the Carnatic. Bangalore is a town in Mysore, 2,900 feet above the sea, and is a place of considerable trade. It is strongly fortified, and contains 60,000 inhabitants. Seringapatam, on the Cavery, 240 miles west of Madras, is a town of 30,000 inhabitants, but is very unhealthy. Tanjore, 180 miles south-southwest, is remarkable for its fine pyramidal temple. Porto Nuovo, on the Carnatic coast, contains flourishing steel and iron works. Trichinopoly, on the Cavery, is a strongly fortified city of 80,000 inhabitants. Calicut, in Malabar, was the first place touched at by Vasco de Gama, in 1498. It contains 30,000 inhabitants. Cannanore is the principal military establishment on the Malabar coast. Mangalore is a flourishing sea-port in Canara. Masulipatam, in the Northern Circars, is a place of considerable trade and also of some military importance. The other principal towns are Ballary, Coimbatore, Cuddalore, Dindigul, Ganjam, Kurnool, Madura, Mysore, Soonda, Tinnivelly, Tranquebar, etc. The sea-port of Tranquebar, situated on the coast near the mouth of the Cavery, was formerly a Danish possession, but was purchased in 1845 (along with Serampore. It has 12,000 inhabitants, and carries on considerable trade. Pondicherry, on the Coromandel coast, and Carical, on the Carnatic coast, are French settlements.

6. PRESIDENCY OF BOMBAY.

104. Bombay, with Scinde and Sattara, occupies the middle western border of Hindoostan, and is situated between latitudes 14° 20′ and 29° 40′ north, and longitudes 65° 52′ and 76° 40′ east from Greenwich. It is bounded northeast by the Northwestern Provinces, east by Bengal and Madras, west by the Indian Ocean, and northwest by Beloochistan.

105. The Presidency is divided into twelve collectorates, as follows:

Collectorates.	Area, sq. m.	Collectorates.	Area, sq. m.	Collectorates.	Area, sq. m.
Bombay Island	18	South Jaghiredars	2,978	Ahmedabad	4,072
Poonah	8,231	South Konkan	6,770	Kaira	1,827
Ahmednuggur	9,910	North Konkan	5,500	Total Bombay	63,505
Candeish	12,527	Surat	1,149	Sattara, etc	6,169
Darwar	9,122	Baroche	1,351	Scinde	52,120

—aggregate, 121,794 square miles and 11,109,067 inhabitants. The subordinate states contain 56,320 square miles, and 4,612,325 inhabitants.

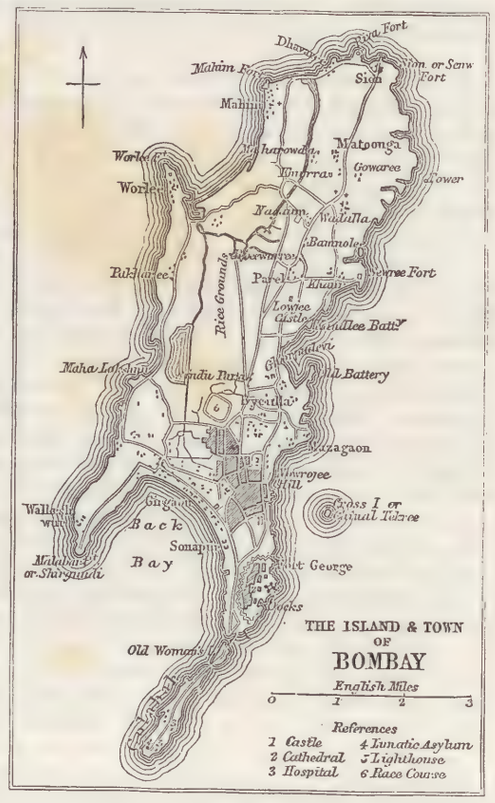
106. Bombay and its dependencies may be considered under two different heads, namely Bombay proper or the country south of the Gulf of Cutch, and Scinde, north of that inlet.

107. The surface of Bombay is irregular, presenting the diversities of low barren hills, mountainous tracts, valleys, and elevated table-lands. The mountains comprise a large portion of the Western Ghaut range, which lines the whole western portion of the peninsula, the Sautpoora chain, the west portion of the Vindhya chain, and farther north the Aravulli chain. East of the latter lies the table-land of Malwa, having an average height of 1,600 feet. The principal rivers are the Nerbudda and Taptee, both falling into the Gulf of Cambay; and there are several other considerable streams that have their sources only within this territory, such as the Godavery and Kistnah, which fall into the Bay of Bengal. The valleys are remarkably fertile, and many parts are in a high state of cultivation. The climate is hot but various. The principal vegetable productions are cotton, rice, dates, and cocoa-palms. In the north a great variety of fruit is produced. Sugar and indigo are raised in Candeish, and the poppy in several districts.

108. Scinde (so called from Scindhu, meaning a "collection of waters") comprises the lower course and delta of the Indus. Its sea-coast stretches from the Koree or east mouth of the Indus to Cape Monze. For several miles inland the delta is subject to overflow, but in the dry season bears an abundant crop of gigantic grass, with furze, mimosas, etc., and affords pasture to numerous herds of buffaloes. Farther north, the alluviums of the Indus, from two to ten miles on either side, are, like the delta, intersected by canals and water-courses, but very superior to it in soil and cultivation. To the east stretches a region mostly alluvial, but which, from its having been deserted by the river, has become a desert of indurated clay. West of the Indus the Hala or Brahooic Mountains approach the river at Sehwan, and come close to the sea at Cape Monze; and between the former place and Kurrachee, on the northwest mouth of the Indus, is a range of hills, the highest of which reach 1,500 feet, terminating abruptly on the river. North of Sehwan (latitude 26° 21′), which is considered to mark the division between Sirra or Lower and Lar or Upper Scinde, the country improves in aspect. Proceeding from east to west, a few limestone and sand ranges are the only heights met with till the valley of the Indus terminates in the mountains of Beloochistan. Scinde is seldom visited by rain, and hence is remarkably dry and sultry. Rice, wheat, and maize form the principal staples. The forests produce many valuable woods, drugs, dyestuffs, etc.

109. The principal manufactures are sugar, indigo, salt, and silks. A description of the latter, ornamented with gold and silver, is woven at Poonah; but, with the exception of these, there are none others worthy of notice. In Scinde the natives are more noted for their products, and are very ingenious as weavers, turners, and artisans, and are especially noted for their skill in the production of wooden lacquered work, famed throughout India. The leading textile fabrics are coarse silk, cotton, and mixed goods. The manufacture of Scindian caps forms also an important branch of industry. Earthenware, pottery, leather, gunpowder, etc., are also produced. In agriculture little progress has been effected. The internal trade of both Bombay and Scinde, and the trade with the adjoining states, is retarded for want of good roads, but is still large, and will shortly be accommodated by railroads. Already upward of 100 miles of railroad diverging from Bombay have been completed, and other lines are progressing. The seaward commerce of the country is comparatively large.

110. Bombay, the capital, stands on a narrow neck of land at the southeast end of Bombay island (latitude 18° 56′, and longitude 72° 53′), and is protected by vast fortifications. It is the chief seat of commerce and the depôt for the western coast region. Its harbor has capacity for the largest shipping. Within the city the dwellings are chiefly of wood, and the shops and warehouses are upon a large scale. Without its walls, where the poorer classes reside, the houses are clay, with thatched roofs. The principal public buildings are the government and custom houses, the cathedral, churches, and mosques, and a fine hospital founded by a Parsee merchant. The barracks, arsenal, and docks are within the fortifications. The structures are magnificent, and there are slips and basins calculated for vessels of all sizes. Frigates and line-of-battle ships have been built here. Among the mercantile establishments are banks, insurance offices, a mint, etc. The principal exports are cotton (received coastwise from the provinces), Persian silks, drugs, spices, gums, etc. The imports are chiefly British manufactures and metals. The seamen of Bombay are considered as the best among the natives of India. Bombay is the eastern terminus of the steamers route from England *via* Suez. Pop. about 500,000.



111. Surat (pop. 60,000), a large town to the northward of Bombay, lies on the Taptee, about 20 miles above its mouth. It was formerly a place of great commercial importance, but the greater part of its trade has been diverted to Bombay, and it is now in a declining condition. Baroche (pop. 30,000), near the mouth of the Nerbudda, has considerable trade with Bombay and Surat in the export of cotton and grain. It is a place of great antiquity,

and, under the name of Barygaza, was an important commercial emporium in Greek and Roman times. Ahmedabad (pop. 100,000), an inland town, and formerly a place of great importance, lies at some distance to the northward of the Gulf of Cambay.

112. Poonah (pop. 70,000) is a large and important town lying to the eastward of the Ghauts, upon a plain elevated 2,000 feet above the sea, and presenting in its healthy and temperate climate a delightful contrast to the heated atmosphere of the coast. A fine road over the Ghauts connects Poonah with the coast opposite Bombay. The country to the northward and eastward of Poonah is remarkable for the numerous hill-forts which it contains, and many of them are striking specimens of natural strength, and celebrated in the annals of Indian warfare.

113. Hyderabad, the chief town of Scinde, lies on the east bank of the Indus, about 120 miles above the sea. The fortress, having a brick wall flanked by large round towers, comprises the ameer's palace, a massive keep, several mosques, a fine mausoleum of Golam Shah, and, together with the open town, about 5,000 mud houses. Its manufactures, comprising arms, silk and cotton fabrics and leather, occupy a fifth of the population. Meeanee, the scene of Sir Charles Napier's famous victory, is near Hyderabad, to the southwestward. Tattah (population 20,000), at the head of the Delta, was the ancient capital, and has some manufactures of silk and cotton cloths. Kurachee, on the coast to the westward of the Delta, is the principal sea-port of Scinde. Shikarpoor (population 25,000), in the north, westward of the Indus, is a flourishing inland town.



NORTHWEST FACE OF THE FORT OF HYDERABAD.

114. Upon the western coast, extending from the 15th to near the 16th parallel, and intervening between the respective limits of Bombay and Madras, is the town and territory of Goa, the principal of the Portuguese possessions in India. The town, which was once a great and splendid seat of trade and power, has long since fallen into utter decay, and is now chiefly in ruins. Six miles nearer to the coast is Panjum or New Goa, which has about 10,000 inhabitants and carries on a limited commerce. It is the residence of the Portuguese viceroy, and of many of the principal Europeans in the settlement. The Portuguese also possess the town of Damaun, on the coast to the north of Bombay, with about 6,000 inhabitants, and Diu, a small town and fort situated on an island of the same name, off the coast of the peninsula of Kattywar. But all these are unimportant places, and of no real value to the Portuguese crown.

7. PROTECTED OR SUBORDINATE STATES.

115. The states which still retain their native forms of government, though really in subjection to British influence, and in some cases under the direct administration of British officers, are in—

Bengal: Hyderabad, Berar, Gwalior, the Bundelcund States, etc., Indore, etc., Bhopal, the Rajpoot States, Rampoor and the Hill States, the Sikh States, the Southwest Frontier States, Sikkim, Bahawlpoor, Cashmere, the Northeast Frontier States, Munneepoor, and Cuttack Mehals, etc.

Madras: Mysore, Travancore, Cochin, Jeypoor, and the Hill Zemindars.

Bombay: The Guicowar's Dominions, the Kattywar Chiefships, the Pahlunpoor Chiefships, Cambay, etc., Kolapoor, Sawunt Warree and Myhee, Cutch, the South Mahratta Jaghiredars, etc.

The extent and population of these states are given in the general table (*antea*). The principal of them will now be described.

116. Hyderabad, or the Nizam's Dominions, embraces a large territory in the central portion of the peninsula, including the provinces of Hyderabad and Beeder, with parts of Aurungzabad, Berar, and Candeish. The whole territory belongs to the table-land of the Deccan, and is traversed by the rivers Godavery, Krishna, and their various tributaries. The chief town, Hyderabad, is situated on a tributary of the Krishna, and has about 80,000 inhabitants. Six miles to the northwest is the fort of Golconda, formerly the depository of the diamonds found in the neighboring parts of India. Beeder is a decayed city to the northwest of Hyderabad. Aurungzabad (pop. 60,000) is a large city in the northwest. In its neighborhood are the celebrated cave-temples of Ellora, and 50 miles to the northeast is the village of Assaye, the scene of the splendid victory gained by Wellington in 1803.

117. Nagpoor or Berar (now directly under the British) adjoins the Nizam's Dominions on the northeast, and embraces the greater part of the Province of Berar, with parts of Gundwana and Orissa. Nearly the whole territory is within the plateau of the Deccan, and is watered by the Mahanuddy and tributaries of the Godavery. Its wheat is reckoned the best in India. The chief city is Nagpoor, in the northwest part of the kingdom, with about 80,000 inhabitants.

118. Mysore, a large province in the south, is entirely surrounded by the territory of Madras. The whole of it forms a plateau of considerable elevation, and consequently enjoys a temperate climate. In addition to most of the ordinary productions of India, the vine and the cypress grow luxuriantly in many parts of the province, and apples, peaches, and strawberries are raised in the gardens. Under Hyder-Ali and his successor, Tippoo Saib, the extent of Mysore was much greater than at present. The chief towns are—Mysore, in the southern part of the territory; Seringapatam (pop. 30,000), on an island in the river Cavery, and Bangalore (pop. 60,000), at some distance to the northeast. Seringapatam was the capital of Tippoo Saib's dominions, and was strongly fortified. Bangalore is now the largest town, and has some silk and cotton manufactories, with considerable trade. Hunsoor, 30 miles northwest of Seringapatam, has extensive manufactures of leather.

119. Cochin, a small province on the southwest coast, lies immediately to the south of Malabar. The hills which form its inland boundary are covered with magnificent forests of teak and other woods. The town of Cochin (situated at the mouth of a considerable inlet of the coast) belongs to the British, but the territory is governed by a native rajah.

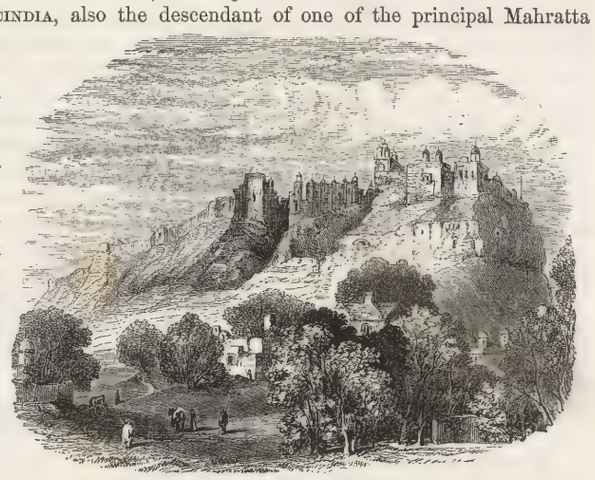
120. To the southward of Cochin, and extending thence to Cape Comorin, is the province of Travancore, also a picturesque and beautiful territory. A great portion of it is covered with forests, which abound in elephants, buffaloes, tigers, monkeys, and other wild animals. On the coast are several small but thriving ports. The chief town is Trivandrum, on the coast to the northwest of the cape.

121. The country embraced within the northern and northwestern parts of the Deccan was formerly under the rule of a people called the Mahrattas, whose power was at one time considerable, but was greatly weakened by the loss of the battle of Paneeput, gained over them by Ahmed Shah (sovereign of Cabool) in 1761, and has subsequently been completely destroyed in contests with the British.

122. Among the present remains of the Mahratta power are the small territories of Sattara, Kolapoor, and Sawunt Warree, which lie within the limits of Bejapoor (though the greater portion of their province is comprised within the Bombay Presidency). Each of these constituted until recently a separate state, under the government of a native rajah, but the rajah of Sattara has been formally deposed by the authority of the Indian government. The town of Sattara is a strong fortress and important military station near the source, and on the Krishna. Bejapoor, an ancient interior city, 125 miles southeast Sattara, is an immense mass of ruins, embracing half-decayed tombs, temples, palaces, and mosques, and is appropriately designated the "Palmyra of the Deccan."

123. Another of the remaining feudatories of the Mahratta Empire is the family of Holkar, whose territories extend over the middle course of the Nerbudda, and embrace a small part of the plateau of Malwa, to the northward of the Vindhya Mountains. The chief town is Indore, which lies in the province of Malwa, on the plain to the northward.

124. The dominions of Scindia, also the descendant of one of the principal Mahratta chieftains, include a large tract, of very irregular shape, and stretching from near the head of the Gulf of Cambay to the banks of the Jumna. This territory embraces the greater part of the plateau of Malwa, the opium of which is particularly celebrated; and this province is well adapted to the growth of the cotton plant, and grapes of the finest quality are also abundantly produced. The capital of Scindia's territory is Gwalior (pop. 50,000), a strong town and fortress 60 miles south of Agra. It was taken by the British in 1842, previous to which the dominions of Scindia had ranked among the independent states. Oojein, on the plateau of Malwa, farther to the southward, is an ancient and venerated Hindoo city of 150,000 inhabitants.



THE FORTRESS OF GWALIOR.

125. In the southeast corner of Malwa is the small territory of Bhopal, extending from the right bank of the Nerbudda northward over the Vindhya Mountains. The chief town is Bhopal, near the north foot of the range.

126. The district of Bundelcund, which forms a part of the province of Allahabad, adjoins the dominions of Scindia upon the northeast. A great portion of it is now included within the British territory, and the remainder embraces some of the small tributary states. The southern and eastern parts are hilly, and produce the ordinary plants of India and the common cereals. Among the principal towns are Bandab, Jhansi, and Callinger. A short distance from the latter are the diamond mines of Punnah, now exhausted.

127. The territory of Rewah, farther to the eastward, also forms a small native state, the capital of which is a town of the same name, about 65 miles southwest of Allahabad.

128. The greater part of the province of Goojerat, including the peninsula of Kattywar (between the gulfs of Cutch and Cambay), is comprised within the dominions of a sovereign styled the Guicowar, a representative of one of the branches of the former Mahratta power. The peninsular portion is hilly in the interior, and only scantily supplied with water, but most parts of Goojerat are very fertile, and produce indigo, cotton, sugar, tobacco, and corn. The town of Baroda, the capital, lies a short distance to the northeast of the Gulf of Cambay, and has considerable trade. Cambay, at the head of the Gulf, was formerly an important place, but has declined from the filling up of its harbor by deposits from the Myhee. Dui, off the south coast of the Kattywar peninsula, is a small Portuguese settlement. The mercantile classes of Goojerat, and likewise of many of the principal commercial towns on the west coast of India, belong to a tribe called Banians. Many of the Banian merchants are very wealthy, and engage actively in distant commercial voyages.

129. Cutch, a small territory under the government of a sovereign termed the "rao," is a narrow peninsula between the Gulf of Cutch and the tract called the Runn. The soil is not generally fertile, but cotton is grown to some extent, and animals (including the horse, goat, sheep, ox, and wild ass) are very numerous. The flesh of the wild ass is used as food by the Mohammedan portion of the population. The chief town is Bhooj, in the middle of the peninsula. Mandivee, on the south coast at the entrance of the Gulf, is the chief seaport, and has a considerable trade.

130. Rajpootana is the name of a large tract in northern India, extending eastward from

Scinde to the territory bordering on the Jumna, and embracing the region of the Great Desert and the tract of the Aravulli Mountains. It is divided into numerous small states, in most of which the ruling people are a race called the "Rajpoots." In the west and north the territory is generally arid, barren, and comparatively unproductive, but in the south and east well watered and fertile. The principal Rajpoot states are—Mewar, Marwar, Oodeypoor, Sirhohi, Joudpoor, Jeysulpoor, Bikaneer, Jeypoor, Kishenghur, and Kotah, all of which derive their names from those of their principal towns. Oodeypoor, the chief place in Mewar, Joudpoor in Marwar, Jeysulpoor and Jeypoor are the most considerable towns.

131. Bahawulpoor, northwest of the Rajpoot states, extends from the Indus and Sutlej eastward into the desert, a large portion of which is embraced within its limits. Near the rivers the soil is fertile, and produces corn, tobacco, indigo, and sugar. This territory is governed by a ruler styled the Khan. Bahawulpoor (pop. 20,000) is also the name of the chief town, which lies on the Sutlej, about 60 miles southwest of Mooltan. It has an extensive trade and flourishing silk manufactures.

132. In the extreme north of India, lying among the high valleys of the Himalaya Mountains, are some native states, tributary to the British. These may be included under the general name of the "Hill States." The most considerable of them is Cashmere, which embraces the fine valley of that name, situated to the northward of the Punjab. Cashmere was formerly included in the Sikh dominions, and formed a part of the late kingdom of Lahore. In 1846 it was placed under the dominion of Gholab Singh. The valley of Cashmere, which lies at a considerable elevation above the sea, is watered by the upper course of the Jhelum, and is bounded on either hand by some of the highest summits of the Himalaya Mountains. It contains several small lakes. The soil is very fertile, and the valley is especially celebrated for its abundant fruits and flowers, among which the rose is carefully cultivated for the sake of the *attar* extracted from it. The shawls woven from the fine hair of the Cashmere goat also enjoy the highest reputation. The capital, Serinuggur (or Cashmere), lies on the banks of the Jhelum, and has 40,000 inhabitants. Higher up the river is Islamabad, also a considerable town.

133. Farther to the northward, in the tract limited on the one side by the upper course of the Sutlej, and on the other by the river Alaknanda (one of the two principal arms of the Ganges), are the territories of Kunawar, Sirmore, and Gurhwal, all of them situated among the wildest regions of the Himalayas, and embracing a succession of mountain valleys, stupendous declivities, and deep ravines. Gurhwal contains the sources of the Ganges and the Jumna, which are regarded by the Hindoos with the utmost reverence, and are visited by numerous pilgrims. A part of this territory belongs to the Northwest Provinces. Some of the tribes inhabiting these wild regions dwell in villages situated from 7,000 to 12,000 feet above the sea, and derive their subsistence from the carrying trade which they pursue with the people of Tibet beyond the mountains. These territories are governed by numerous petty rajahs under British protection. The chief towns which they contain are Simla, in Sirmore, a short distance from the left bank of the Sutlej, and at an elevation of 7,500 feet above the sea; Nahn or Nahan, in the same territory; and Tuwara or Dehra, in Gurhwal.

134. Sikkim, a small state much farther to the eastward, lies between the territories of Nepaul and Bootan, and has upon its northern frontier the loftiest peaks of the Himalaya system, and the highest known mountain summits on the globe. It is under the government of a rajah, whose residence is the small town of Tumloong.

8. INDEPENDENT STATES.

135. The only states which claim absolute independence throughout Hindoostan are the small states of Nepaul and Bootan, both situated on the southern slope of the Himalaya Mountains.

136. The kingdom of Nepaul, the largest of these, is a narrow strip of country between the British province of Kumaon on the west, and the little state of Sikkim on the east. The greater part of the surface is rugged, and along its northern frontier it includes many of the highest elevations belonging to the mountain regions. The valleys, however, are generally fertile, and Nepaul exhibits great diversity both of climate and natural life, the vegetable and animal productions of tropical regions being found almost side by side with those of the temperate zone. Nepaul was formerly in the possession of several independent rajahs, but all these are now subject to the head of the Ghoorka tribe, who is the sovereign of the entire country. The chief town, called Khatmandoo (about the middle of the territory), lies in a circular valley, at an elevation of nearly 4,800 feet above the sea. The town of Ghoorka is situated farther to the westward.

137. Bootan, to the eastward of Nepaul and Sikkim, is also a long and narrow territory which stretches along the north side of the valley of the Brahmapootra, and embraces a succession of rugged mountain tracts and elevated valleys. It is under the government of a ruler styled the "deb-rajah." The chief town is Tassisudon, near the western frontier.

138. The inhabitants, both of Nepaul and Bootan, and indeed of all the hill countries of India, are a more hardy and energetic race than the Hindoos in general. The Bootanese are industrious cultivators of the soil, and both these people and the Nepaulese carry on considerable traffic across the mountains, interchanging the productions of Bengal and Tibet. The Bootanese are believed to be at least in part of Mongolian origin.

9. THE ISLAND OF CEYLON.

139. Ceylon is a large island lying in the Indian Ocean, 50 or 60 miles southeast of the southern extremity of Hindoostan, and separated from the continent by the Gulf of Manaar and Palk's Strait.

140. The north and northwest coasts are flat and monotonous—those of the south and east bold and rocky; and many parts of the coast, both at its north and south extremities, are studded with small, rocky, and verdant islands. The two principal harbors are those of Trincomalee, on the northeast, and Point de Galle, on the south coast. The southern and broader part of the island consists of a mountainous central nucleus and of a gradually subsiding hilly country, ultimately succeeded on the west side by a flat tract extending to the coast. The average elevation of this region is about 2,000 feet, but there are several summits of upward of 7,000 and 8,000 feet. The loftiest culminations are Pedrotallagalla 8,280 feet, Kerrigal-Potta 7,820 feet, Totapella 7,720 feet, and Adam's Peak 7,420 feet. The valleys are remarkable for their length and depth in proportion to their width. The rivers are mere mountain streams, and only navigable even for canoes for a short distance from their mouths. There are no noticeable lakes in Ceylon, the largest being but four miles broad; but there are extensive salt lagoons on the coast, which, being connected by channels, afford some means of internal communication.

141. Ceylon is remarkably destitute of the useful minerals. But, as if to make up for deficiency in the useful, nature has given to this island a remarkable richness in the precious. Most of the gems for which it is famous occur in granite rock, though also found in the alluvial beds of the rivers. Ceylon affords all the varieties of quartz, as rock-crystal, amethyst, rose-quartz, cat's-eye, and prase. Garnets, cinnamon-stone, zircons, and rubies are also among the gems of the island. Graphite and sulphur occur; but neither mineral nor medicinal springs abound, and the saline productions are few.

142. The climate, though hot, is still more temperate than its latitude would demand, and where the jungle has been cleared is perfectly healthy. This greater moderation of heat is due to the sea-breezes. But locality and surface, here as well as elsewhere, have special influences. The east coast, being exposed to the northeast monsoon, has a hot and dry climate, while the west, open to the southwest monsoon, has a humid atmosphere, and the interruption of the monsoons by the mountains causes heavy rains to fall on one side while the other is parched with drouth.

143. In the luxuriance of its vegetation Ceylon rivals the islands of the Indian Archipelago. Its most valued products are coffee, cinnamon, and the cocoa-nut. Palms in great variety abound, and the island presents vast forests of satin, rose, Japan, iron, jack, and other beautiful woods. Rice, which is the staple food of the people, is cultivated in the low lands, and also in the valleys and on the hill slopes. Of this two crops are yielded annually. Most of the animals found on the adjacent main, except the royal tiger, exist in Ceylon. The adjacent seas abound in fish; and pearls were formerly found in large quantities in the Gulf of Manaar.

144. The manufactures of Ceylon are very unimportant, with the exception of the manufacture of arrack. Weaving, however, gives employment to many people, and a large number of mills are in operation for the manufacture of cocoa-nut oil. The Cingalese are also expert workers in gold and silver, and excel in the manufacture of lacquered ware. The principal articles of export are coffee (in 1832, 2,824,998 lbs., and in 1852, 41,706,448 lbs.), cinnamon (in 1852, 644,857 lbs.), and cocoa-nut oil, areca-nuts, timber, etc. The value of exports in 1833 was £132,530—in 1852, £948,000, and of imports for the same years £320,891 and £1,000,474 respectively. These amounts are exclusive of specie from India and of imports exported.

145. The population is composed of Cingalese, Malabars, Moors, Viddahs, a small number of Europeans, and negroes. The Cingalese, inhabiting the coasts, are a mild, timid, but hospitable race; in stature below a medium, and of a color varying from the lightest to the darkest tints of bronze. The races of the interior are a superior race, and endowed with a greater degree of intelligence. The Malabars are similar in all respects to those of the continent—active, enterprising, and crafty. The Moors or Mohammedans are found throughout the island, and are an energetic and industrious people, and engross a large portion of the commerce and trade. The Viddahs, a savage people, are supposed to be a remnant of the aboriginal inhabitants. They inhabit the most secluded and inaccessible parts of the island, and subsist entirely on wild fruits and animals. Their habitations are generally built among the branches of large forest trees. The other inhabitants of the coast consist of Dutch, Portuguese, and English colonists; some Kaffirs and Javanese, a few Chinese and Parsee traders, and a various population springing from intermixture of races. In habits the Cingalese are simple. Their houses are generally of mud, one story high, and tiled. In manners they are courteous and polished, but have made little progress in the useful arts, and their intellectual powers are limited. The general population of the island was decreasing for several centuries. In 1832 the entire population scarcely amounted to 1,000,000. Since then it has increased rapidly—in 1843 it was 1,442,062, and in 1853, 1,627,849. Less than 50,000 are foreigners, and about 10,000 of these Europeans. The great increase is chiefly derived from the Malabar coast, whence coolies are brought to cultivate the coffee estates. Buddhism is the prevailing religion among the Cingalese.



CINGALESE BUDDHIST PRIESTS AND DAGOBAH AT KANDY.

146. The government is vested in a governor and council. In every province is stationed a government agent, and in each district an assistant agent. These functionaries administer the affairs of government, and officiate also as magistrates Every village has its native headsman elected by the inhabitants. For the administration of justice there is a supreme court at Colombo, and district courts. Until within a few years the revenue of the island has not met the expenditures. In 1852 the receipts amounted to £411,806, and the expenditures to £412,871. The chief sources of revenue are customs, land rents, and salt farms. The church establishment is under the bishop of Colombo. The native government has been entirely superseded.

147. The island is divided into six provinces—Eastern, Western, Northern, Southern, Central, and Northwestern, and these are again divided into districts. The principal towns are

Colombo, the capital, with 40,000 inhabitants; Kandy, the former capital of the kingdom of Kandy; Galle or Point de Galle, the chief port; and Trincomalee, Calpentyn, Caltura, Jafnapatam, Newerra-Ellia, etc.

148. Cingalese annals contain a historical record of events for 24 centuries; and their authenticity as regards descriptions of towns and buildings and other works of art is established by existing ruins, proving that the island had been at a remote period inhabited by a powerful and numerous people. Originally the island was divided into a number of distinct petty kingdoms, but in process of time the whole was reduced to the single monarchy of Kandy. Little, however, is known regarding it until the year 1505, when the Portuguese established a regular intercourse with the island. Subsequently the Portuguese were expelled by the Dutch, who in their turn were driven away by the British. Hitherto Kandy had retained its independence; but in 1815 the king was deposed, and Ceylon became a British colony.

10. OTHER INDIAN ISLANDS.

149. The other principal islands belonging geographically to Hindoostan are the Laccadive and Maldive islands, and the Chagos Archipelago.

150. The Laccadive Islands, a group of seventeen, are situated about 150 miles to the westward of the coast of Malabar. They are of small size, and trifling elevation above the sea, and mostly protected by coral reefs on the windward side. The cocoa-nut is their only valuable product. The inhabitants, about 6,500 in number, are subject to the "biby" or native princess of Cannanore, upon the adjacent coast of the mainland.

151. The Maldive Islands, a more considerable archipelago than the preceding, lie farther to the southward, and extend through nearly 500 miles in a north and south direction. They form numerous circular groups or assemblages of islands, called atolls, each group being surrounded by a wall of coral rock, which is only at a trifling elevation above the sea—in some cases scarcely reaching the level of high water. The islets themselves are entirely composed of coral rock, and the highest ground in the archipelago does not exceed 20 feet in altitude. In the center of each atoll is a lagoon of only 15 or 20 fathoms depth, and some of them afford a passage for the largest ships. As in the case of the preceding group, the most valuable possession of the Maldives is the cocoa-nut palm, the various produce of which is largely exported by the natives. The inhabitants are under the dominion of a native chief, but annually render a nominal homage to the British governor of Ceylon. They are Mohammedan in religion, and are described as a mild and inoffensive race.

152. To the southward of the Maldive Islands (lying nearly under the same meridian and between the fifth and eighth parallels of south latitudes) is the Chagos Archipelago, a group of coral reefs situated in the broader part of the Indian Ocean. The largest of them is the island of Diego Garcia, which is 15 miles in length, and only from 8 to 10 feet above the level of high water. All the islands are covered with tall cocoa-nut trees. The other produce consists of poultry, pigs, fruit, and vegetables; and a small quantity of cotton is grown in some parts of the group. Here are a few European settlers, chiefly French, and the islands are sometimes visited by trading vessels for the sake of fresh provisions and water. Cocoa-nut oil is exported. These islands form a dependency of the British colony of Mauritius.

[*Weights, Measures, and Moneys.*—The weights and measures of India are extremely diverse, almost every state having its own; but in British India there is a general standard which is as follows:

Weights.—The "tola" of 12 mushas or 96 ruttees = 11.67 grammes or 180 grains Troy; 80 tolas = 1 seer or 2.05714 lbs. avoirdupois, and 40 seers = 1 maund.

Measures.—The denominations and values of the British Imperial systems; and locally as follows—at Bombay, the "covid" = 457.19 millimetres or 18 inches, and the "guz" = 685.79 millimetres or 27 inches; at Calcutta the "guz" of 2 cubits = 914.38 millimetres or 1 yard; and 2,000 guz = 1 cos or mile. The conge of cloth = 20 pieces. The "biggah" of 20 cottahs = 1,600 square yards, and at Madras, the "covid" = 473 millimetres or 18.6 inches. The "cawney" of 24 maunies = 6,400 square yards. The garce of 80 parahs, 400 marcals, or 3,200 puddys = 300,000 cubic inches or 139.5 bushels. Grain and liquids, however, are generally sold by weight.

Moneys.—The integer of account throughout India is the "rupee," usually divided into 16 annas, each of 12 piesah or pice. The Company's rupee is commonly estimated at 24 pence sterling.

The principal coins issued under the auspices of the East India Company since 1835 are—*gold:* the mohur (nominally 15 (but really 16) rupees, and weighing one tola or 180 grains Troy, 916.67 fine, and hence worth $7.10581, and its subdivisions in proportion;—*silver:* the rupee (the same weight and fineness as the mohur), and hence worth $0.44444; and—*copper:* piesah.

Prior to the reformation of the mint in 1835 each of the presidencies had its own standards, and all the native states minted their own coins. So late as 1826 there were 25 varieties of gold standards and 70 of silver in circulation. The monetary unit of the Mogul Empire was the sicca rupee, which was coined as early as the thirteenth century. It weighed exactly one "sicca" or 179⅘ Troy grains of pure silver. The gold rupee or mohur was of the same weight and fineness. Since the fall of this empire the native sovereigns have continued these coins, but without adhering to the original fineness, and hence has arisen a vast number of cotemporary coins purporting to be the same in value but actually very different. These it is needless to specify; but, perhaps, it may be interesting to have the history of the coinage of the several presidencies.

Bengal.—From 1793 to 1818 the gold mohur of this Presidency weighed 190.9 grains Troy, and was 992½ fine, and the silver rupee 179.7 grains and 979½ fine. In 1818 the standard of the mohur and the rupee was changed, but not their intrinsic value, and the fineness of both was made 916⅔ millimetres. The multiples and subdivisions of these coins were minted proportionately. Previous to the reign of William IV. the old Persian inscriptions and Mohammedan dates were retained on the coins, but since that period the head of the British sovereign with an English inscription and date have been substituted. The principal mints are at Calcutta, Furruckabad, and Benares.

Madras.—The old coins of Madras were the gold "star pagoda" and the silver "rupee" and "fanam." The pagoda weighed 52.8 grains, 800 fine; and the rupee 179⅘ grains, nearly fine, but afterward reduced to 176.4 grains, 940 fine. The fanam (the 20th part of the rupee) was minted in proportion. From 1811 to 1818 the double and single rupee, with the half and quarter rupee, and pieces of 1, 2, 3, and 5 fanams were minted with an increase of alloy, but with the same amount of pure silver; also pieces of ⅛ and ¼ pagodas in silver, equal in value to the same denominations in gold; and in 1818 the mohur and rupee, minted according to the present rates, became the principal coins to the exclusion of the pagoda.

Bombay.—The first coinage of this Presidency was of the same value as that of Surat. Considerable confusion, however, retarded the mint operations until 1800, when the mohur and rupee were minted of the weight of 179⅘ grains, 920 fine. In 1824 the standards of Madras were adopted.

The most important native mints now in operation are those of Lucknow, Hyderabad, Nagpoor, etc.

Small payments are everywhere made in "cowries," 160 of which = 1 anna. A "lac" is 100,000 rupees; a "crore" 10,000,000, and a "mas" 100 crores. In Indian notation large sums are divided into periods of two figures only, except the last, and hence, for instance, a sum containing eleven figures is pointed thus—25.22.57.91.329, and reads thus—25 mas, 22 crores, 57 lacs, 91,329 rupees. The proportionate value of gold and silver in Indian coins is as 1 to 15. Gold, however, is undervalued at this rate, and is not demandable in payments, and is seldom in circulation. Silver is therefore the common medium of exchange and standard of value.

In the French and Portuguese territories the standards of those nations are more or less in use. Accounts are kept in rupees: 3 rupees = 1 pagoda. The native standards need not be recounted, as they are not used in commercial transactions.]

FARTHER INDIA OR INDO-CHINA.

1. Farther India or Indo-China lies between the latitudes 1° 20′ south and 28° 12′ north, and the longitudes 89° 40′ and 109° 20′ east; and is bounded on the north by the East Himalayas and China, on the east by the Gulf of Tonquin and the China Sea, on the south by the Gulf of Siam and Strait of Malacca, and on the west by the Indian Ocean and Hindoostan, from which it is geographically separated by the Brahmapootra. The length north and south is about 2,000 miles, and its greatest breadth east and west is nearly 1,200 miles, but it varies exceedingly, and in the Malay peninsula scarcely averages 100 miles. The area is computed at 1,000,000 square miles.

2. Farther India occupies the most easterly of the three great peninsulas of southern Asia, and as such forms a well-marked geographical region. Four great parallel mountain chains traverse it north and south, bounding the Irrawady, Menam, and Maykiang or Camboja rivers, respectively composing the central portions of the dominions of Burmah, Siam, the Laos country, and Anam. The whole region abounds with rich valleys, and yields many of the most valuable and some unique mineral, vegetable, and animal products. Except on the west frontiers (included in the presidency of Bengal), the inhabitants are of races quite different from those located in Hindoostan, and resemble much more those inhabiting China and the great table-land of eastern Asia. Their architecture, customs, and religion (Buddhism) are also analogous to those prevalent throughout the rest of eastern Asia; and, except Burmah and the British territories in the north and east, all the states of this peninsula acknowledge themselves more or less tributary to the Chinese Empire.

3. The principal political divisions of Farther India are Burmah, Siam, the country of the Laos, and Anam, and the Malay states, with the British territories. These will be considered separately.

BURMAH OR BURMESE EMPIRE.

4. Burmah, the westernmost of the Indo-Chinese states, is bounded north by Assam; east by the Chinese province of Yun-nan and the kingdom of Siam; south by Pegu, now a British possession; and west by the presidency of Bengal, Chittagong, and Aracan; and extends between latitudes 18° 30′ and 26° 30′ north, and longitudes 93° 30′ and 98° 40′ east from Greenwich. The area is estimated at 120,000 square miles.

5. Burmah is composed of a series of longitudinal valleys sloping to the south, and traversed by the Irrawady and its affluent, the Kyen-dwen, by the Setang, and by the Saluen, which last stream forms the eastern boundary. These valleys are formed by spurs of the Himalayas, which lower in elevation as they proceed south. The most important are the chain of Amoopectoomoo, forming the west frontier, and terminating south in Cape Negrais, and the chain which separates the basin of the Irrawady from that of the Saluen. The culminating point of the former is 8,202 feet, and of the latter 12,434 feet. The southern part of the Empire is a comparatively level country, interspersed with lakes and intersected by branches of the Irrawady and Setang. Northward to 22° the surface is hilly and elevated, but intersected by numerous fertile and well-wooded valleys; and still farther north it is decidedly mountainous.

6. The Irrawady, the largest river, rises in the Himalayas, flows south near the western frontier, receiving its chief affluent, the Kyen-dwen, near latitude 21½°, passes through Pegu, and falls by numerous mouths into the Gulf of Martaban. The main river is navigable at all seasons for vessels of 200 tons as far up as Ava, and during the rains as far as Bhamo, 800 miles from the sea. The other navigable affluents of the Irrawady are the Bhamo, Langt-chuen, Mukiaung, and Myeengaga, all of which enter it above the Kyen-dwen. The Setang rises in Lake Gnaungrue (latitude 21°), and is a comparatively small stream, and has a total course of 300 miles to the gulf, which it reaches through a broad estuary and several small offsets. It has no continuous channel of greater depth than four feet. The Saluen or Thanluyn is next to the Irrawady in volume, and falls into the sea between Martaban and Moulmein. It is a very long river, having its rise in Lake Bouka, in Tibet. The only lakes of any considerable size—though small ones, as before stated, are numerous—are Nandokando, north of Ava, about 40 miles long and about 12 broad, and Gnaungrue, already noticed, about 10 miles long and about half that breadth.

7. Burmah is rich in mineral products. Those known to exist are gold, silver, tin, iron, antimony, lead, arsenic, and sulphur, all except the first two said to be abundant; besides these, marble, niter, natron, salt, and precious stones, including rubies, sapphires, amethysts, garnets, chrysolites, and jasper. Coal is said to be abundant, and also petroleum; and in the north parts of the Empire are mines of pure amber.

8. In the lower districts there are two seasons similar to those of Hindoostan, a dry and a wet: the latter from April to October, during which 150 to 200 inches of rain fall; and the former from November to April. North of the delta there are three seasons: cold, from November to February; hot, from March to June; and rainy the rest of the year. All the lower parts of the valley of the Irrawady are subject to annual inundations, which continue from May to October. Earthquakes are frequent in the south. The climate, however, is salubrious where the land is cleared.

9. Vegetation is rich and varied. In marshy places rice, which constitutes the staple food of the people, is produced in abundance, and on the dry ground maize and millet are raised. Around Ava and some of the other larger towns, and in the more elevated spots, wheat and tobacco are grown, and also indigo, sugar, and cotton. The "lapet," a Burmah tea-plant, is grown on the hills of Ava; also turmeric and various dye-stuffs. Timber is abundant, including teak, soondry, oak of several kinds, and ebony.

10. Elephants are numerous in the low country, but are never used as beasts of burden; and the white elephant, sometimes met with, is an object of superstitious veneration. The king always possesses one, which is considered the second dignitary of the state, and has a regular cabinet of ministers, with numerous attendants and guards. Rhinoceroses, tigers, leopards, buffaloes, hogs, civets, wild-cats, apes, deer, antelopes, otters, etc., are more or less numerous. Birds are in great variety, and include many of rich plumage; and reptiles are exceedingly numerous. The domestic animals are oxen and buffaloes, used extensively for agricultural purposes; horses, small but vigorous, and only used for the saddle; hogs, sheep, and goats, and common fowls.

11. The inhabitants of Burmah belong to a common stock, the Indo-Chinese, and are divided into several tribes. The most important of these are the Burmans, occupying the middle portion of the basin of the Irrawady; the Shans, in the east and northeast provinces; the Kyens, spread over the center of the country; and the Karians, between the Setang and the Saluen. Tartar and Tibetan tribes occupy the northern parts. Siamese slaves are numerous, and the mines are wrought by Chinese. The Burmese are a short, stout, active, and well-proportioned race, of dark-brown color. Station is designated by dress; that of priests is yellow, a color held so sacred that it is sacrilege for any other class to wear it. Tatooing, chiefly in the legs and lower parts of the body, is practiced by the Burmese and some of the other tribes; and the chewing of betel and the smoking of tobacco are almost universal. The dwellings are generally made of timber or bamboo. The total population may be stated at 4,000,000.

12. Manufactures are unimportant and inferior. The cottons manufactured are by no means equal to those of Hindoostan or China. Durable though coarse silks are also made, and pottery-ware glazed and unglazed; sword-blades, coarse cutlery, and clumsy gold and silver jewelry. The Burmese also understand gilding and dyeing, and make paper, umbrellas, cordage, sandals, and inferior gunpowder. They are famous as bell-casters. Commerce, in the aggregate, is considerable. In the lower provinces internal traffic is conducted chiefly by water conveyances; in the hilly districts by land communication, oxen being the beasts of burden. The principal articles of export are teak-wood, catechu, stick-lac, beeswax, elephants' teeth, raw cotton, orpiment, gold, and silver. The cotton is principally sent to Dacca, where it is manufactured into the fabrics of that place. The principal imports are European manufactures, and the cotton piece-goods of Bengal and Madras. The Burmese also carry on a pretty extensive traffic through Bhamo, as the entrepôt with the Chinese of Yun-nan, from whom they receive copper, quicksilver, vermilion, iron-pans, brass-wire, tin, lead, silver, gold and gold-leaf, earthenware, paints, carpets, tea, raw silk, etc., giving in return for these raw cotton, ornamented feathers, edible birdsnests, ivory, rhinoceros and deers' horns, sapphires, rubies, etc.

13. The government is despotic. The king is styled "Lord of Life and Property," and he rules by a council called "Lut d'hau," composed of from four to six officers, which exercises legislative, executive, and judicial functions, acting for the king, whose name never appears. The laws are taken from the celebrated Menu code, and are, in many respects, distinguished for the wisdom of their provisions. The only hereditary public officers are the Taubwas, the tributary princes of the conquered provinces. The revenue is derived from a tax upon cultivated lands, fisheries, mines, petroleum wells, exports, etc. There being no military class, and the standing army being small, general levies are made in time of war. The main army is infantry.

14. Excepting some of the barbarous mountaineers, the inhabitants of Burmah are half-civilized, and adhere to Buddhism, worshiping Guadama, one of the incarnations of Buddha. The priests are numerous, bound to celibacy, and eat but once a day. There are monasteries for both priests and priestesses. To the priests are committed exclusively the charge of public instruction, and nearly every person receives an elementary education. The principal spoken idiom is Burman, but Pali is the language of religion and literature.

15. Monchobo, the capital, is built on the west bank of Lake Nandokando, in latitude 22° 17′, and longitude 95° 37′. It is inclosed by a wall of brick and mud, with an exterior dry ditch. It was selected as the seat of government after the earthquake of 23d March, 1839, which greatly injured the cities Ava, Amarapura, etc. Population 14,000.

16. Ava, the old capital, lies on the left bank of the Irrawady, 28 miles southeast of Monchobo, and is divided into an inner and outer town, each surrounded by a brick wall and fosse, the circuit of the whole being five or six miles. The houses in general are mere huts, but a few are of superior construction. The inner town, about a mile in circuit, is chiefly occupied by the palace, government offices, arsenal, etc. Ava contains also some dilapidated monasteries. The bazaars, including one without the walls, are eleven in number, and were at one time richly stocked with merchandise. The population in 1826 was 30,000, but it is now much less, as every substantial edifice in the city was destroyed by the earthquake of 1839. Sagaing is a straggling town of mean houses on the opposite side of the Irrawady, and may be considered as a suburb of Ava.

17. Amarapura, 18 miles southeast of Monchobo, lies about three fourths of a mile east of the Irrawady, and consists of a large fortress, with extensive suburbs, stretching for about four miles along the river. Throughout the city are numerous temples and pagodas, with gilded roofs, etc. Before the removal of the government to Ava in 1819 it contained 175,000 inhabitants; it now contains about 30,000.

18. Bhamo, a large trading town and seat of a viceroy, is situated on the upper Irrawady, 160 miles north-northeast of Monchobo, and 35 miles from the frontier of the Chinese province Yun-nan. It is the chief entrepôt between Burmah and China, and in many respects may be considered a southern Kiachta. Population 20,000. About 70 miles north-northwest of Bhamo stands the town of Mogaung. In the vicinity are famous amber mines.

19. The Burmese is a very ancient nation, and is said to have received the Buddhist religion as early as 301 years before Christ. At that period the government was permanently fixed at Prome, where it continued for 395 years. After this it was removed to Pugan, where it continued for nearly 12 centuries. In 1300 A. D. it was removed to Ava, and was there continued for 369 years, and where, in the 16th century, Europeans first became acquainted with the Burmese. Toward the commencement of the 18th century the Burmese were conquered by the Peguans, a people whom they had overcome and kept in subjection for two centuries before. In 1757 the East India Company obtained of the king a site for a factory and other advantages. Subsequent hostilities led to the extension of British rule, and in 1826 the provinces of Aracan, Ye, Tavoy, Mergui, and part of Martaban, were added to the Indian empire; and again, in 1852, the city of Pegu was captured; and in 1853 the provinces of Pegu and Bassein, covering the deltas of the Irrawady and the Setang to about 19½° north latitude, were seized upon and annexed to the Indian government.

KINGDOM OF SIAM.

20. SIAM, occupying the middle portion of the Indo-Chinese peninsula, with all the country surrounding the Gulf of Siam, stretches between latitudes 6° and 20° north, and longitudes 98° and 106° east, and measures north and south 960 miles, and east and west 420 miles in greatest extent. In the Malay peninsula, however, the width is only from 60 to 80 miles. It is bounded north by the country of the Laos; east by the Laos and Anam; south by the Gulf of Siam, along which it has a coast-line of 1,400 miles; and west by the Indian Ocean and the Tenasserim provinces. Area 188,000 square miles.

21. The surface is covered with hills and mountains, except in the central part, the valley of the Menam, which is described as a rich alluvial plain. The highlands bounding Siam east and west seem to belong to two mountain chains, running south from the table-land of Yun-nan, and on either side of the Menam valley. The most westerly of these chains reaches an elevation of 5,000 feet; the height of the east range is unknown. The mountains of Siamese Malacca nowhere exceed 3,000 feet. The territory abounds in small rivers, but there are only three great navigable streams: the Saluen, forming part of the west boundary; the Menam; and the Mekon, on the boundary toward Anam. Of these the Menam is the most important, as pervading the greater part of the kingdom, and almost monopolizing its trade and navigation. It has a course of 800 miles, and falls into the Gulf of Siam by three channels, only the easternmost of which is navigable for sea-going vessels. The only other river worthy of notice is the Bang-pa-kung, about 240 miles long, which enters the gulf at Bang-pa-tsoe, 60 miles east of the Menam. All the Siamese rivers are flooded between June and September, which partly accounts for the fertility of their basins.

22. Tin, which pervades the whole Malay peninsula down to its extreme south point, is found within the Siamese territory between latitudes 11° and 14°, and the mines in the island of Salang, off the west coast, are perhaps scarcely less productive than those of Banca. Gold is extensively diffused, and iron is very abundant. Copper and lead are found in the mountains, and both zinc and antimony to the east of the Menam. Sapphires, rubies, and topazes are found in the hills of Chantibun (latitude 12° 30′), on the east side of the gulf, where they are obtained by washing the alluvial soil.

23. As in other tropical countries, Siam has two seasons, the wet and the dry, the former beginning in April or May, and the latter in July. The mean temperature at Bangkok is 82° Fahr., with a mean range of 13°. On the whole the country is salubrious, but in the wet season and in marshy places ague and cholera are very prevalent. In the upper country the climate is more extreme. The soil of the whole valley of the Menam is of great fertility, and rice and maize, the grains most used, are extensively cultivated. Sugar-cane, the pepper-vine, the tobacco-plant, and cottons of various sorts, are also largely cultivated. Among the forest products are gamboge, the scented agilla or aloe-wood, sapan-wood, teak-wood, rose-wood, etc. The animal kingdom in Siam does not vary much from that of Burmah; and here, as there, the elephant is held in high and even religious esteem.

24. The population is estimated at from 4,000,000 to 6,000,000, about one half being Siamese, a third Laos, and the remainder Chinese and Malays, with some Peguans, Hindoos, etc. The Siamese, in common with the Laos, Cambojans, and Malays, are members of the great Mongolian family, and of the same race as the people of Burmah and Anam. Slavery prevails throughout the nation, polygamy is common, and the women are the principal workers. The Siamese language is simple in its construction, and forms a connecting link between the Chinese and Malay. Their literature is meager, uninteresting, and in point of imagination and force of expression much below the Arabic, Persian, or Hindoostanee. They have no history beyond the dry chronologies of their kings, nor have they a drama. Education is carried to a very limited extent, and few can do more than read and write.

25. House-carpentry, canoe and junk building, making pottery and coarse cutlery, leather-dressing, and the construction of musical instruments are the chief mechanical employments. Their silk and cotton fabrics are generally coarse. In domestic architecture they are equally rude, the houses of the lower orders being formed wholly of wood or bamboo, roofed with palm-leaves, and mostly raised on piles, as in the rest of Indo-China. A few only in the capital are built of brick and mortar. Many of their houses, too, are built on boats, which abound on the river near Bangkok. Of the arch they are wholly ignorant. Roads there are none, and wheel-carriages are almost unknown. On their religious edifices, however, the Siamese bestow abundant labor and expense; these are constructed of solid masonry, and covered with tiles, having all the wood-work elaborately carved and gilded, and filled with carved and richly gilded images of Buddha.

26. Siam has a very extensive trade, both inland and coastwise as well as foreign. This is almost wholly centered at Bangkok. The foreign trade is chiefly with the southern ports of Anam, Java, Singapore, Penang, etc., and occasionally with British India, the United States, and Great Britain. The Chinese conduct the great bulk of this trade, and are at once the navigators and merchants of the kingdom.

27. The king is "owner of all," and hence a despot; the people regard him in the light

of a deity. But externally he is tributary to China. Next in rank to the king is the "wang-na" or viceroy, one of the most exalted princes, chosen by the king on his accession to the throne to assist him in his duties; and under this officer is a supreme council of departmental ministers. There is neither hereditary rank nor aristocracy in Siam, and the people generally appear to be mere slaves, subservient in all things to the pride and caprice of the sovereign. Indeed, every adult male owes a third of his time to the king. There is no standing army, but every able-bodied male is liable to be called into the field by the mere will of his chief. At Bangkok there is the semblance of a respectable navy, consisting of scores of war-junks, galleys, and other vessels, mounted with heavy guns. The military and civic governors are also judges and magistrates, and decide cases, subject to appeal to the provincial viceroy. There are written laws, which are made, altered, and amended at the sovereign's will. The religion of the country is a degraded kind of Buddhism.

28. Bangkok, the capital and one of the most commercial cities of Asia, is situated on the Menam, 20 miles from its mouth, latitude 13° 58′, and longitude 100° 34′. It stretches along both sides the river, and consists of three parts: the palace or citadel, on an island inclosed by walls, and comprising the residence of the sovereign and court, with many temples and gardens; the city proper; and floating town, composed of movable bamboo-rafts, each bearing rows of 8 or 10 houses. It has numerous Buddhist temples, but the majority of the buildings are of wood, mounted on posts. Most of the intercourse is carried on by water. Bangkok has manufactories of iron and tinware, and of leather; and has also a large junk and boat-building interest. Its foreign commerce is principally with China and the Asiatic Archipelago, and the British Indian ports. Population about 300,000, one third being Chinese. The country around is flat and swampy.



CITY OF BANGKOK.

29. Yuthai, the ancient capital, lies 40 miles north of Bangkok, on the east bank of the river. It is a large town, wholly inclosed by the river and intersected by canals; and has a vast royal palace, with several temples, but it was mostly ruined by the Burmese in 1757, and has since ceased to be of importance. Prabat, 160 miles north-by-east Bangkok, contains an impression of the Buddha's foot in a rock, which is the grand object of pilgrimage among the Siamese. Chantibun, at the mouth of the river of the same name, and 180 miles southeast Bangkok, is a large inclosed town, and carries on a large trade with China in pepper, fine timbers, and dyewoods; ivory, precious stones, etc. Penomping, on the Mekon, 260 miles from its mouth, and Kangkao, on the Gulf of Siam, are the principal commercial towns in Siamese Camboja. In the Malay peninsula the principal towns belonging to Siam are Champon, Chaiya, Ligor, Sungora, Patani, etc., all on the Gulf of Siam; Queda, on the Malacca Strait; and Talung, in the interior.

30. Siam has no place in history prior to 638, and credible records go back only to 1350, the date of the foundation of Yuthai, the old capital. In the same century the country became tributary to Camboja. In 1502, Siam became known to Europeans, and subsequently mutual embassies were exchanged between Siam and France. Contests for the throne distracted the country from 1690 till 1759, during which the Burmese seized Mergui, Tavoy, and Martaban, and overrun the whole valley of the Menam. Subsequently the Burmese were expelled. Since this period the kingdom has prospered, and is now larger and in a better state than ever before. The Tenasserim provinces are indeed lost, but it has recently become possessed of one of the most valuable sections of Camboja, embracing the rich province of Batabang, conquered and retained in 1809; and recently also it has acquired dominion over the northern Malay states of Queda, Patani, Ligor, etc.

EMPIRE OF ANAM.

31. Anam or An-nam occupies the east and northeast portions of the Indo-Chinese peninsula facing on the Gulf of Tonquin and the China Sea; and is situated between latitudes 10° 12′ and 22° 53′ north, and longitudes 102° 16′ and 109° 32′ east, with a length, north and south, of 860 miles, and a breadth irregular, in the center only 100 miles, expanding on the north to upward of 400 miles, and on the south to about 280 miles. Area 220,000 square miles.

32. The whole of the coast is considerably indented, especially at the mouths of the rivers, where it affords many safe and commodious harbors; and the view which the country presents from the sea is that of a varied landscape composed of bold headlands, picturesque valleys, well-cultivated slopes, and low plains, frequently terminating in sand-hills, with a background of rather lofty mountains in the distance. Along the coasts are numerous groups of islands. The country comprises three distinct territories and a part of a fourth: Tonquin, Cochin-China, Tsiampa, and the eastern portion of Camboja.

33. Tonquin, occupying the whole north part of the Empire, is mostly mountainous, but in the east is level, and toward the sea terminates in an alluvial plain. The principal rivers are the Song-ca or Tonquin, and the Rokbok. The climate is less extreme than that of Siam, but it is subject to typhoons. The soil is fertile, and yields good crops of rice, cotton, fruits, ginger, and spices; and its forests produce the finest of woods, while the low coast is clothed in palms. Tonquin is the only part of the Empire that is rich in metals, and produces largely of gold, silver, copper, and iron. Elephants are numerous, and other wild beasts are in great variety. The inhabitants are a short, squab, ill-favored people, but extremely industrious. Those living on the coast are chiefly employed in fishing and hunting the alligator. In the interior, agriculture is the almost sole employment. The principal towns are—Kachao, the capital, and Hean, both on the Song-ca.

34. Cochin-China lies south of Tonquin, and extends along the coast to about the 12th parallel, with an average width of about 100 miles, and is bounded on the west by a range of lofty, barren mountains. For 10 miles inland the country is a complete desert, and is generally sterile, but contains many fertile spots. In the more favored districts, grain, liquorice, and all articles of sustenance are produced in great abundance. The coast is beautiful and grand, being indented by numerous bays, and backed by mountains which rise to the height of several thousand feet, and broken by innumerable valleys and ravines. None of the rivers are at all considerable. So far as known, Cochin-China is destitute of metals. The people of this territory are of small stature, not very dark, and of agile frame. The women are well formed, have fine eyes, and beautiful jet-black hair. Their principal food is rice, and they dwell chiefly in huts with straw roofs. The capital of the province and of the empire is Hué, on the left bank, and 10 miles from the mouth of the river, called by the natives Phu-thua-theen, and by foreigners Hué or Sun-Hué. Latitude 16° 30′, and longitude 107° 12′. It is well fortified, but most of the houses are mean. Its walls, mounting numerous cannon, and upward of five miles in circuit, inclose an inner citadel, with the palace, spacious barracks, an arsenal, large public granaries, and several magazines. A large garrison and fleet of galleys are usually stationed here. In the neighborhood, which is romantic and beautiful, there are several palaces, summer residences, and royal retreats. The total population is estimated at 50,000 or 60,000. The other principal towns are—Turon, on the river so-called, 60 miles southeast Hué; and Phouyin, a little north of Cape Averella.

35. Camboja or Cambodia, to the west of Cochin-China, is a continued flat of rich alluvial soil, full of navigable rivers, one of which, the Mekon, forming its western boundary, is among the largest in southern Asia. Such is the fertility of the land, that Camboja is considered the granary of Cochin-China. It produces vast quantities of rice, betel-nuts, anise, and cardamons. The areca-palm, the teak-tree, and various dye and hardwood trees also grow here, and gamboge and a variety of sweet-smelling resins are peculiar to the country. The mulberry-tree is extensively cultivated, and the silkworm is an especial object of care. The animals of this kingdom are the buffalo, bullock, horse, rhinoceros, elephant, tiger, leopard, monkeys, etc. The climate is in general temperate. The natives are below the Siamese in civilization, and are physically a coarser race, with dark complexions. They are persevering agriculturists, but have no manufacturing skill. The principal town is Camboja, on the Mekon. It is now greatly decayed, but the ruins of its royal palaces and pagodas attest its ancient grandeur.

36. Tsiampa or Champa occupies the southern portion of the Empire. It is extremely sterile, consisting mostly of sand-hills without vegetation, and rocky peaks with occasional stunted shrubs. Its coast, however, abounds with excellent harbors. Northwest of Tsiampa, and between Cochin-China and Camboja, is a bleak and wild mountain tract, inhabited by the Moi, a savage race, who live chiefly on wild fruit and roots, and mostly sleep in trees. They are hardy and muscular, and on this account are captured by their neighbors and used as slaves. Sai-gon, the capital of the province and chief commercial emporium, is built on the Sai-gon River, 35 miles from the China Sea, and contains about 180,000 inhabitants, including many Chinese. It consists of two towns, connected by a straggling suburb: Pingeh, with the citadel, is on the west side of the Sai-gon; and the commercial town, or Sai-gon proper, is on a tributary stream, navigable for large boats. It is regularly built and intersected by canals, some of which are lined with quays of stone and brick-work. Sai-gon has also a navy-yard, a royal palace, and large rice magazines, and communicates with the Mekon by a canal 23 miles in length. Its foreign trade is chiefly with Siam and China. Miaho is a small seaport town at the mouth of the Mekon. Dongnai is built on the Dongnai River, a tributary of the Sai-gon.

37. Otherwise than agriculture, the principal branches practiced by the natives are spinning of cotton and silk, the weaving of these into coarse fabrics, the preparation of varnish, the manufacture of laquered ware, the smelting of iron, the manufacture of fire-arms, and the construction of ships or junks. Internal trade is conducted chiefly on the rivers Song-ca and Mekon, along the sea-coast, or by the lagoons skirting the latter, which form a kind of natural canals. Goods are conveyed in junks, which are well constructed and managed and average 40 or 50 tons burden. The trade between Hué and Tonquin, as well as a great portion of the foreign trade, is in the hands of the Chinese. The latter is chiefly with China, Siam, and the British Malacca settlements, from the ports of Sai-gon, Kachao, Hué, Faifo, Quinhon, and Phouyin; but the whole foreign trade amounts to comparatively little, and is subject to many prohibitions.

38. Although nominally patriarchal, the government of Anam is actually despotic. The general administration is conducted by a council of mandarins as supreme, and six ministers of state. There are besides these, superior officers styled "Kun," one being the viceroy of Tonquin, another viceroy of Camboja, and the third, termed the minister of elephants, acting both as prime minister and minister of foreign affairs. The system of jurisprudence is that of China. In military affairs the government claims the service of every male inhabitant from 18 to 60 years of age. The entire army consists of 60,000 men, but has occasionally amounted to double that number, and attached to the force are 800 or 1,000 elephants in substitution for cavalry. For the protection of the coasts marine regiments are formed, to act as sailors and soldiers on board the war-vessels, which are very numerous. Buddhism is the acknowledged religion of the state. In general customs the people follow the Chinese; their language is also similar, and as the Anamese have no national literature, they receive all their books from China. In writing they use the Chinese characters, with some considerable differences, however, in some of their combinations. The population is variously stated at 10 to 15 million souls.

39. According to the records of China, Anam was conquered and colonized by the Chinese

B. C. 214. In A. D. 263 the Cochin-Chinese regained their independence. In 1280 the Tartar Khans of the latter ineffectually attempted to repossess themselves of the Cochin-Chinese territory, but in 1471 the Tonquinese conquered that country. In 1530 the whole became tributary to China. In 1553 Cochin-China again became independent, and from that time till 1748 Tonquin was also nominally under a sovereign of its own. In the latter year they were again united. In 1774 the country was revolutionized, the king and his oldest son slain in the revolt, and anarchy prevailed until 1781, when the second son of the late king, aided by the French, reinstated himself in all his dominions. Within a recent period the western part of Camboja has been annexed to Siam.

LAO OR COUNTRY OF THE LAOS.

40. Lao, in the interior, and of which little is known, lies between latitudes 15° and 23° north, and longitudes 98° and 106° east, and is bounded north by the Chinese province Yunnan, east by Anam, south by Camboja and Siam, and west by the Saluen River, which separates it from Burmah. Length about 720 miles, and breadth from 300 to 400 miles. Area 180,000 square miles.

41. Lao is intersected north and south by various mountain ranges, between which are extensive alluvial plains, watered by large rivers flowing parallel to the mountains, having their sources in China and Tibet, and terminating in the Gulf of Siam and the China Sea. The principal rivers are the Mekon, the Man-lon, and the Menam, all of which are joined in their courses by large tributaries. The mountains are said to be rich in gold, silver, copper, iron, tin, lead, and rock-salt, while rubies and emeralds are found in the vicinity of Lanchang. The forests are extensive and contain many magnificent trees, among which are the varnish-tree and the fan-palm, the former of which attains here the utmost perfection. The principal domestic animals are bullocks and horses. Among the wild animals are the tiger and the rhinoceros.

42. The inhabitants, who are of the Mongol race, are called "Shyans" by the Burmese, "Laos" by the Chinese, and "Tai" or Tie by themselves. In all they number about 2,000,000. They are divided into three distinct families, with many subdivisions and tribes, and their language has a corresponding number of dialects. They are said to be more civilized than the Burmese; mild, humane, intelligent, and industrious. Each tribe is independent in itself, and forms a member of a mutual confederacy of the whole. The government is patriarchal. Anciently the Laos practiced demon-worship; some still adhere to it, but most of them are at the present time Buddhists.

43. It is a matter of doubt whether or not the Laos have any manufactures beyond the domestic weaving of silk and cotton stuffs for family use, and the preparation of lacquered wares, in which they excel. The silkworm is reared in the country, but the produce is coarse, and the best silks used are brought from China. With Siam, Burmah, and China a considerable trade is carried on. The exports are slaves, ivory, gold, silver, tin, lead, precious stones, lac, gum benzoin, silk, hides, sapan-wood, etc.; and the imports in return, from Burmah, ironware, sandal-wood, cotton cloth, chintzes, terra-japonica, opium, etc.

44. The principal cities and towns are located on or near the Mekon River, which is navigable through its whole length. Lanchang or Hanniah is situated on the east bank of the river, in latitude 15° 40′. It is the capital of the country and a walled town, said to be well-built, and to contain about 20,000 inhabitants. Kiang-seng and Kiang-kong are two towns 140 and 160 miles higher up, and on the opposite side of the river. Kiang-tung is a walled town on the Nam-lue, an affluent of the Mekon, and is one of the principal towns, capital of a petty state, and exercising power over several of the neighboring states. Kiang-hung, in latitude 21° 58′, is also an important town, and Chang-mai, on the Menam, in latitude 20° 16′, has 25,000 inhabitants.

MALACCA.

45. Malacca or the Malay peninsula, the most southern portion of continental Asia, lies mostly between latitudes 1° and 13° north, and longitudes 98° and 104° east; is connected northward with Siam by the Isthmus of Krah, and is washed on the east by the Gulf of Siam and the Chinese Sea, and on the south and west by the Strait of Malacca, separating it from Sumatra. Malacca, in the ordinary acceptation of the term, however, does not extend north of latitude 7°, and contains only about 45,000 square miles, with a population of 375,000 souls.

46. This country is centrally traversed by a mountain-chain rising from 3,000 to 6,000 feet in height, but decreasing on its procession southward, where, however, the detached mountain, Ophir, is estimated to rise 5,700 feet above sea-level. The whole surface is well watered and finely timbered. Its formation is chiefly primitive, and considerable gold and abundance of tin are produced. But the staple productions are pepper and other aromatics, and several kinds of gums.

47. The country, as far south as latitude 6°, comprising the states of Ligor, Queda, and Patani, is claimed by Siam. South of that parallel it is subdivided into many small native states, the principal being Perak, Johore, Pahang, Kalantan, Tringany, and Rumbowe; besides the British territories of Malacca and Naning, the province of Wellesley, and off the southeast coast the island of Singapore.

48. The Malays, who have given name to the peninsula, migrated from Sumatra in the twelfth century, and seem to be a branch of the indigenous inhabitants of that great island and probably of Java, but are now settled also along the coasts opposite to these islands. They are ferocious, and noted for their piratical habits, and yet in their national character there is something highly romantic and even interesting. They are not wholly illiterate, for they possess letters, and as Mohammedans they are acquainted with the Koran. In several of the mechanic arts they have attained excellence, and in some of their principal settlements they carry on a considerable trade.

49. The governments are in the hands of sultans or rajahs, whose power is extremely limited, and is chiefly confined to their immediate residences. Every village has its chief, and as these potentates seldom agree on any common ground, warfare among them is perpetual. The laws and institutions of the Malays exhibit the worst kind of Islamism, mixed up with native superstitions and practices.

50. The principal native towns are Salangore, Pahang, Johore, etc. There are also numerous other towns and villages of less note. Malay towns, however, as a general thing, consist chiefly of groups of huts, built of wood and thatched with leaves, huddled together without order, and are notoriously and in the extreme filthy.

BRITISH POSSESSIONS IN FARTHER INDIA.

51. The British Possessions in Farther India are—Aracan, Pegu, and the Tenasserim Provinces, all of which have been ceded by Burmah at various times, and Penang and the Wellesley province, Malacca and Naning, and Singapore, commonly called the Straits Settlement. The following table will convey an idea of their extent, population, etc.:

Divisions.		Ceded, etc.	Area, sq. m.	Population.	Chief Towns.	Population.
Aracan	Burmese cessions.	1824	16,500	70,000	Aracan	10,000
Pegu		1853	42,000	160,000	Pegu	30,000
Tenasserim		1826	32,500	120,000	Amherst	6,000
Penang and Wellesley	Straits Settlement.	1800	300	101,000	Georgetown	8,000
Malacca and Naning		1825	1,000	60,000	Malacca	12,000
Singapore		1819	275	53,000	Singapore	26,000
Total			92,575	564,000		

Strictly speaking, and considering Farther India to embrace all the territories east of the Brahmapootra, this section of our work ought also to include Assam, Cachar and Jynteah, and the semi-independent state of Munneepoor. But these and some other districts in this quarter are so intimately connected with the presidency of Bengal as to actually form a part of it; while the above states, though subject in chief to that presidency, are otherwise specially governed.

52. Aracan or Rakhain forms the westernmost part of the peninsula of Farther India, and extends from 16° to 21° north latitude along the Bay of Bengal, and is bounded east by a range of mountains which separates it from Burmah. The coast is fronted by numerous islands, moderately high, and thinly inhabited. The chief rivers are the Aracan, Myoo, Aeng, and Sandoway. The soil of the higher grounds is a rich loam, that of the lower and most extensive portion is chiefly argillaceous, while on the rivers and the coasts there are large accumulations of sand. Elevated forests, wooded valleys, rivers, and small lakes form the general features of the interior mountain districts. Between the mountains and the sea it is covered with thickly-wooded jungles, so intersected by inlets, rivers, and lakes as to be difficult of passage. Iron, coal, and naphtha are found along the coast. The chief products are rice, indigo, cotton, timber, salt, oil, hides, and horns; ivory, silk, and fruits, which are exported to Bengal and Chittagong in return for betel and British and Indian manufactures. The chief town is Aracan, and the chief military station Kyook-Phyoo; other towns are—Akyab, Talak, Aeng, Sandoway, etc.

53. Pegu, formerly a province of the Burman Empire, occupies the whole deltas of the Irrawady and the Setang, and extends between the mountain frontier of Aracan and the river Saluen. There are several ranges of hills within the province, but generally speaking it may be considered as a level country. The minerals comprise iron, tin, and lead; and rubies, sapphires, and rock-crystals are also met with. The climate is variable, the soil fertile, and with little trouble productive of fine crops of rice. Among its forests the teak-tree is conspicuous. Elephants, tigers, buffaloes, deer, etc., abound in the woods and in the jungles. The inhabitants are called Salains by the Burmese and Moons by themseles. The principal ports are—Bassein, Rangoon, and Martaban. Pegu is the old capital. Prome is also an important commercial town.

54. The Tenasserim Provinces comprise a long and comparatively narrow slope of territory extending along the coast of the Gulf of Martaban, between 11° and 19° north latitude, and the Mergui Archipelago, extending south to 8° 30′. The chain of mountains forming the east frontier rises to between 3,000 and 4,000 feet in height, and is everywhere covered with dense forests. Granite and gneiss are the principal rocks of these elevations, but they are nowhere precipitous, and their summits are generally rounded. In the north is a separate chain, rising about 2,000 feet, and composed of limestone, sandstone, and clay-slate, with steep acclivities and overgrown with bamboo jungles. The Attayen, Tavoy, and Tenasserim are the principal rivers. Smaller streams are numerous, and along their banks are undulating plains, alternating with limestone and sandstone hills, the detritus of which, mixed with the alluvial deposits of the valleys, furnishes a soil of vast fertility, and adapted for the culture of nearly every valuable tropical product. Where not cultivated, these plains, like the hills, are universally covered with forests of teak, sapan, etc., but along the rivers and shores with mangroves and bamboos. The coast is generally flat, and the rivers already named navigable for boats usually to 50 miles from the sea. South of Whale Bay (latitude 11° 40′) it is high and rocky, and all navigation ceases. Islands of various magnitude occur along the whole coast. The islands of Balu-gyun, opposite Moulmein, by far the most important of all, has alluvial lands of great fertility, and a greater density of inhabitants than any other district. South of Tavoy Island (latitude 13°) the numerous groups composing the Mergui Archipelago commence; these consist of islands of all varieties of form and size, separated from each other by shallow sand-banks. Domel, St. Matthew, and King islands are the largest; the two latter rise in successive ranges to the height of 3,000 feet, are thickly wooded, and have some good harbors. The inhabitants comprise Burmese, Peguans, Shans, Siamese, Karians, etc., and half-castes between Malays and Portuguese. The Burmese are most numerous. The total population amounts to about 120,000. The manufactures pursued are chiefly of a domestic nature, but the natives carry on a brisk trade with Rangoon, Penang, the Nicobar Islands, Acheen, etc. Ship-building is extensively carried on at Mergui, Tavoy, and Moul-

mein. Besides the sea-trade, Tenasserim has a great deal of internal petty traffic. The territory now is divided into the provinces Amherst, Tavoy, and Mergui. Moulmein, opposite Martaban, is the principal commercial port. Amherst, at the mouth of the Martaban River, is the seat of the local government and the residence of a commissioner from Penang, to which these provinces are subordinate. During the dominion of the Burmese, Mergui was considered the capital. Tavoy is a small town, but trades pretty extensively with Moulmein and Mergui, which last named town has a good and well-sheltered harbor, and is excellently situated for overland-trade across the isthmus to Bangkok. These provinces have been successively held by Pegu, Siam, and Burmah. In 1826 they were ceded to the India Company, and since then have been used as a penal colony by the government, and 2,000 Thugs transported to it have become, it is said, respectable settlers.



MOULMEIN.

55. PENANG and WELLESLEY constitute a single possession, the first being an island and the latter its continental dependency. PULO-PENANG (Betel-nut Island), called also Prince of Wales' Island, is situated near the northern entrance of the Strait of Malacca, opposite the coast of Queda, from which it is separated by a narrow passage. The surface is densely wooded and in the north mountainous. The climate is considered healthy and the temperature moderate. Before the establishment of Singapore as the chief commercial entrepôt between the Indian seas and Europe, Penang had a very extensive trade, and though at present more limited, it has still considerable commerce. In 1849 its imports amounted to 7,219,825 and its exports to 6,245,600 rupees. Penang is also the depôt for the tin of Salang, etc.; and of that metal 20,000 picul were exported in 1850. Georgetown, the capital, has an excellent harbor, protected by two commodious piers, an arsenal, barracks, and civil and convict hospitals. The population of the island in 1851 was 43,143, viz.: Malays 16,670, Chinese 15,457, and English, etc., 347. WELLESLEY extends 35 miles along and four miles back from the coast, and in 1851 had 47,545 inhabitants, chiefly Malays.

56. MALACCA and NANING, on the southwest coast of the Malay peninsula, extend along the shore about 40 miles, and inland less than 30 miles. The coast is rocky and barren, with detached islets of cavernous rocks, but the interior is mountainous. Malacca, the capital, is built on both sides of the Malacca River, near its mouth, in latitude 2° 10′, and longitude 102° 5′. It contains a barracks, court-house, jail, and military hospital; and here also are Chinese, Malay, and Hindoo schools, and an Anglo-Chinese College. Like Penang, its commercial importance has waned since the establishment of Singapore, but it has yet considerable trade in ivory, gold, tin, etc. Population 12,120. The government of the settlement is administered at Malacca, with an assistant at Naning. Malacca was founded by the Malays after their migration from Sumatra; it was afterward possessed successively by the Portuguese, the Dutch, and the English; and was finally ceded by the Dutch to the English in exchange for Bencoolen in Sumatra, which the latter nation had held for some time.

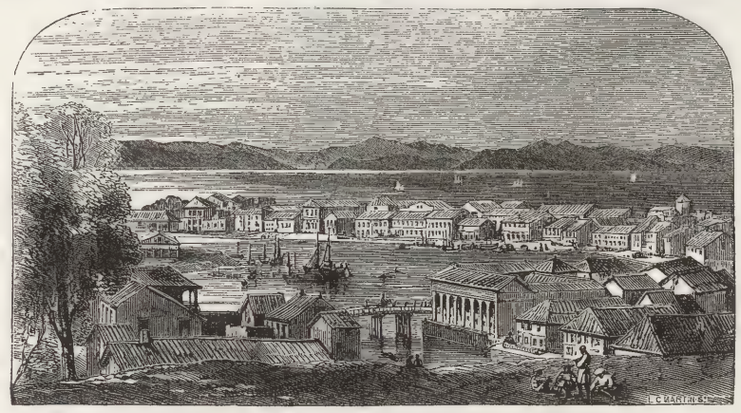


STATES-HOUSE, MALACCA.

57. SINGAPORE consists of an island off the southeast extremity of the Malay peninsula, separated from the mainland by a strait, and numerous surrounding islets between capes Buru and Romania. Its surface is beautifully diversified with irregular hills, valleys, and plains, and the climate is delightful. The soil is fertile, and in its natural state covered with jungle, but is well adapted for the growth of spices, nutmegs, cloves, ginger, and pepper. The sugar-cane and cocoa-nut have also been cultivated with success. Wild animals are very numerous, including tigers, and generally the same species as found on the continent. Field labor is performed mostly by Chinese. But Singapore is more important for its commercial station than for its proper productions. The town of Singapore, which is also capital of the colony, is situated on the south side of the island in latitude 1° 17′, and longitude 103° 31′, and has an immense trade. It has, in fact, become the great entrepôt of south Asia and the Malay Archipelago. The port is perfectly free, and is visited by ships of all nations, without the payment of dues of any description. To this policy is owing its rapid progress, as shown in the annexed table of imports and exports for the past 30 years:

Years.	Imports.	Exports.	Years.	Imports.	Exports.
1825–6	£1,407,465	£1,202,975	1845–6	£2,895,227	£2,356,872
1830–1	2,000,373	1,948,411	1850–1	3,085,587	2,551,700
1835–6	1,654,089	1,562,864	1854–5	3,976,280	3,409,934
1840–1	3,178,543	2,673,351	Increase in 30 years.	2,568,815	2,196,959

In 1854–5 the arrivals at Singapore and dependencies numbered 1,112 vessels (391,722 tons), and the departures 1,097 (383,173 tons); and besides these upward of 2,000 native vessels visited the ports. Singapore is also a station of the British steamers between India and China, and communication is regular with both these countries and with the Red Sea once a month. The population of the city in 1851 was 25,916. The government of the colony is vested in a governor (who is also governor over Malacca and Penang), assisted by three resident councilors, etc. He resides at Penang, and has his deputies at Malacca and Singapore. The military force consists of about 800 men of all arms. In 1854–5 the revenue of the



SINGAPORE, FROM GOVERNMENT HILL.

colony amounted to £47,697, and the expenditures to £55,242. The entire population in 1851 was 52,891, exclusive of troops and convicts; it is now (1855) about 80,000, of which more than a half are Chinese and about a third Malays, and of course Buddhism and Mohammedanism are in like proportions. In 1822 the population was less than 10,000 souls. There are three newspapers published at Singapore, all weeklies. This island is noted in Malay history as having been the first place settled by the refugees from Sumatra in the twelfth century. In 1819 the British obtained permission to build a factory on the south shore, and in 1824 purchased the sovereignty and fee simple of the island, as well as all the seas, islets, etc., for 10 geographical miles round. In 1824, Singapore, Penang, and Malay were erected into a provincial government, known as the Straits Settlement. These provinces give Great Britain complete command over the northern passage to China.

[*Weights, Measures, and Moneys.*—In general the denominations assimilate—on the west coast those of Hindoostan and on the east coast those of China. In the south Malay states both are used; and throughout the British settlements the denominations of the East India Company's territories prevail.

WEIGHTS.—In Burmah the "vis" or paiktha of 100 kiats = 1629.8 grammes or 3.59 lbs. avoirdupois; 150 vis = 1 candy. In Siam the "catti" = 1,209.33 grammes or 2.66 lbs. avoirdupois; 50 catties = 1 pecul.

MEASURES.—In Burmah the "taong" or cubit = 493 millimetres or 0.53916 yard; 7,000 taong = 1 taing or league. In Siam the cubit is 1.48 metre or 58.5 inches; 4 cubits = 1 fathom, and 20 fathoms = 1 sen. The sen is also a surface measure of 20 fathoms to the side. Rice is generally sold by the basket; all other solids and also liquids by weight.

MONEYS.—These are very various, and gold and silver are generally taken by weight. In small transactions cowries are used.]







CHINESE EMPIRE.

1. The Chinese Empire, comprising China Proper and several external territories of vast extent, forms one of the largest, and, in regard to population, civilization, and industry, the most remarkable nation to which the attention of mankind has ever been attracted. The area in round numbers may be estimated at 5,000,000 square miles.



SCENE IN CHINA.

2. The limits of this vast territory are not well defined, but the best authorities place it between latitudes 20° 20′ (or if the island of Hai-nan be included, 18° 20′) and 56° 12′ north, and between longitudes 70° and 144° east. The outline is irregular. On the east and southeast it is bounded by various arms of the Pacific Ocean; Tonquin and Burmah border on the southwest; the high ranges of the Himalayas separate the states of British India from Tibet, the western border of which is the Kara-Korum Mountains; the states of Lahore, Cashmere, etc., and the Kirghiz steppe, lie upon the western border of Little Tibet, Ladak, and Ili as far north as the Russian border; and thence Asiatic Russia is co-terminous with China from the Kirghiz steppe for 3,300 miles eastward to the sea. The longest line which can be drawn, from the southwestern part of Ili, northeasterly to the Sea of Okhotsk, is 3,350 miles, and the greatest breadth of the country is 2,200 miles. The periphery of the Empire is estimated at 12,550 miles.

3. Thus the Chinese Empire includes all the table-land of eastern Asia—about a third part of the Asiatic continent, or a little less than a tenth part of the land surface of the globe; and contains within its enormous area the largest amount of population and wealth united under one government in the world.

4. The Empire, for administrative purposes, is divided into three principal parts, viz., China Proper, Manchuria, and the Colonial Possessions.

China Proper or the Eighteen Provinces, which occupy the south.

Manchuria or the native country of the Manchus, lies north of the Great Wall and east of the Daourian chain to the Pacific Ocean.

The Colonial Possessions include Mongolia, Ili with Songaria and eastern Turkestan, Koko-nor, Tibet, etc.

5. The following table exhibits the approximate extent and population of the several component parts of the Empire:

Divisions.	Area, sq. m.	Population.	Pop. to sq. m.	Capitals.
China Proper	1,300,000	388,000,000	276.9	Pe-king.
Manchuria	700,000	7,000,000	10.0	Moukden.
Mongolia	1,400,000	10,500,000	7.5	Uliasutai.
Ili, with Songaria, etc.	900,000	4,500,000	5.0	Kuldsha.
Tibet	790,000	10,000,000	14.3	H'lassa.
Total	5,000,000	420,000,000	84.0	

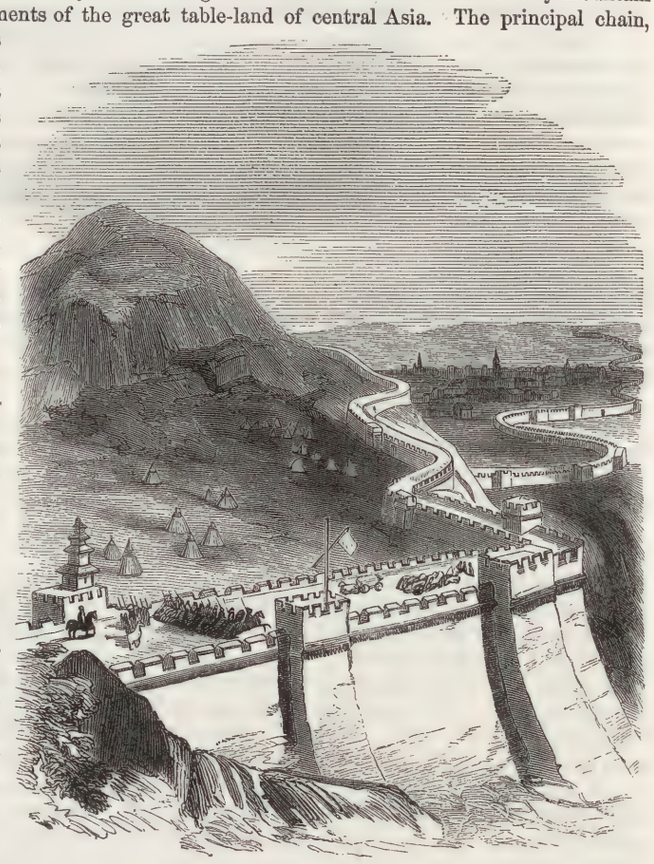
The population of the last four divisions is entirely unknown, and is here set down at rates consonant with the physical characters of the several countries. Corea and Ladak, though usually described as parts of the Chinese Empire, are in reality independent states.

CHINA PROPER.

6. China Proper lies between latitudes 20° 20′ and 41° 30′ north, and longitudes 97° 40′ and 122° 38′ east; and is bounded on the north by the Great Wall, one of the most remarkable structures of man, and which proceeds directly over mountain and valley for a length of 1,250 miles, and forms a barrier between China and Mongolia, on the east by the Pacific Ocean, on the south by the China Sea and the eastern peninsula of Asia, and on the west by Burmah and Tibet. The area is computed at 1,297,999 square miles.

7. The coast-line, forming an irregular curve of 2,500 miles, gives about one mile of coast for every 250 square miles of interior surface. One of its peculiar features is the vast number of islet groups by which it is bordered. It is not deeply penetrated by gulfs, the only one of great extent being that of Pechelee, in the northeast, but numerous indentations of sufficient dimensions to form safe and capacious roadsteads are found in every quarter. With exception of the bold and rocky peninsula of Shantung, the shore, from the Gulf of Pechelee south to the island of Chusan, is flat, and in many places so little raised above the sea-level as to be extensively inundated during a continuance of strong winds. From Chusan to the mouth of Canton River it is usually rocky, bold, and precipitous; from this point southwest, flats, occasionally interrupted by bold headlands, again prevail.

8. The interior of the country commencing in the northwest in a series of lofty mountain ranges, forms the abutments of the great table-land of central Asia. The principal chain, called Yun-lin, has its main axis north to south. Its average height is not known, but many of its summits are described as towering far above the line of perpetual snow. Its most important ramifications take an east direction, and, becoming the leading watersheds of the country, divide it into three great basins, the waters of which are accumulated in mighty rivers and carried east to the sea. The general slope of China, as thus indicated by its principal rivers, is west to east, the mountains lowering gradually as they proceed toward the coast, and ultimately sinking down by a succession of descending terraces into level tracts, the largest of which, called the Great Plain, has a length of not less than 700 miles and a width varying from 150 to 500 miles, and consists generally of a deep alluvium, which is of unparalleled fertility, and maintains a denser population than any other part of the earth's surface of similar extent.



GREAT WALL OF CHINA.

9. No country of the world is better watered than China. The Yang-tse-kiang, which traverses the country centrally west to east, has a course of 2,900 miles. The Hoang-ho, the next in size, has a course of 2,000 miles, during the larger and lower part of which it gradually approaches the former, and being connected with it by the Imperial Canal, which has a length of 700 miles, furnishes what is said to be the most magnificent system of water communication in existence—a system which brings all the provinces into direct communication with each other, and gives an inland navigation which meets with only one interruption from Canton to Pe-king. Besides these rivers and their numerous tributaries, the most deserving of notice are the Hong-kiang, having its embouchure at Canton; and the Eu-ho, which, instead of the east course followed by the great rivers of China, flows north, forming part of the line of the Imperial Canal, and falls into the Gulf of Pechelee.

10. The lakes of China are mere dilatations of the rivers, and, though numerous, are not individually of great extent. The largest, Tungting, in the province of Ho-nan, which furnishes an important affluent to the Yang-tse-kiang, has a circuit of 220 miles. The next in size, Poyang, in the province Kiang-su, is 90 miles long by 20 broad, abounds in fish, and is remarkable both for the picturesque scenery around it and the numerous beautiful and populous islets which it incloses in its bosom.

11. The geology of China is very imperfectly known, but there is no doubt that all the leading geological formations are found in it. Primary formations are most largely developed in the mountainous regions of the west, where granite, gneiss, and primitive schists prevail. The same formations exist to a more limited extent in the southeast, where bleak mountains of granite give that district its distinguishing feature. The secondary formation, including the carboniferous and cretaceous systems, occurs to a small extent in the central province of Ho-nan; and the space traversed by the Imperial Canal in uniting the Hoang-ho and Yang-tse-kiang, but more largely in the neighborhood of Pe-king, where a zone of no great width, but considerable length, forms an irregular curve from northeast to southwest, and contains beds of coal, from which the capital and the surrounding districts obtain their principal supplies of fuel. The tertiary formation has its largest development in the northeast, and probably underlies the greater part of the alluvium which covers the surface of the Great Plain.

12. Perhaps the only metal which China is not known to possess is platinum. Gold, though not thought to be very abundant, is obtained by washing the sand of several of the rivers, particularly those of the upper branch of the Yang-tse-kiang, and in the mountainous and almost inaccessible regions of Yun-nan. Silver is also found in the same regions. Much of it is of great purity, and is well known under the name of "sycee" silver. Copper is worked to a great extent. Quicksilver (cinnabar) is of frequent occurrence, and is much used both for coloring and medicine. There is no want of iron, either in the form of rich hematite

or in that of the carbonate of the coal measures, and lead, tin, and zinc exist in more limited quantity. The coal occurs both as bituminous coal and anthracite. Among other mineral substances may be mentioned niter, alum, gypsum, and, more important than all, inexhaustible beds of kaolin or porcelain earth. Various precious stones also are found, and agates admirably wrought form a particular article of commerce.

13. The greater part of China belongs to the temperate zone, only a small portion of the south lying within the tropics. It has what is called an excessive climate, and has a far greater range of temperature than is usual within the same parallels of latitude. Pe-king, the capital, is nearly a degree south of Naples, and yet while the mean temperature of the latter is 63°, that of the former is only 54°. In summer, however, the heat reaches from 90° to 100° in the shade, while the winter is so cold that the rivers usually continue frozen from December to March. At Hong-Kong, notwithstanding the influence of the sea in checking extremes, the thermometer, in June and July, the hottest months, frequently stands at 90°, and in winter, from December to March, sinks nearly to the freezing-point. At Canton and the adjacent hills, snow, though rarely, has sometimes fallen. At Shanghae the range of temperature is still greater, the maximum reaching 100°, and the minimum falling at least 20° below freezing or 12° Fahr. Still, the climate is eulogized as one of the finest in the world. In the south, the southwest, and northeast, monsoons blow with great regularity. In the north the winds are more variable. Among the greatest scourges of the country, and perils to the navigator of the adjoining seas, are the dreadful and too frequently destructive gales known by the name of typhoons.

14. Among trees, the bamboo, as in India, is perhaps the most valuable of all, not so much on account of its magnitude, as on account of the almost endless uses to which it is applied. Several species of willow attain a large size. Oaks of different species are common, and the economical uses of the various parts—the wood, bark, and galls, are perfectly understood. Coniferous trees are represented by numerous forms of pine, yew, and cypress. The tallow and camphor trees abound, and the koo-soo, a species of sycamore, furnishes paper from its inner bark. Palms are not abundant, but the cocoa-nut flourishes in Hai-nan and on the adjacent coast. The pandanus or screw pine is abundant, but the date-palm is not known. The chestnut, walnut, and hazel are all indigenous. The fruit-trees include many species of fig—the mango, guava, wanghee, orange, peach, pomegranate, quince, nectarine, plum, and apricot. In general the fruits are of indifferent quality.

15. Among shrubby plants, the first place is unquestionably due to thea bohea and thea viridis. The next in importance is the mulberry. Among flowering shrubs or trees, the rose, with its numerous varieties, is most conspicuous. Nor must we omit to mention the hydrangea, the passion-flower, the lagerstrœmia, in its white, purple, and red varieties; Indian pride, the Chinese tamarisk, the cactus, the cereus, seen sometimes in the south with more than 50 splendid flowers in full bloom; and the camelia, in almost endless variety. No department of the Chinese flora is richer than that of the *azalea*. "Few can form any idea of the gorgeous beauty of the azalea-clad hill, when on every side the eye rests on masses of flowers of dazzling brightness and surpassing beauty. Nor is it the azalea alone that claims our admiration; clematises, wild roses, honeysuckles, and a hundred others, mingle their flowers with them, and make us confess that China is indeed, as claimed by the natives emphatically, the 'central flowery land.'"

16. Dwarfing is a favorite occupation of the Chinese gardeners, and no small degree of scientific acquaintance with vegetable physiology is implied in the success with which they manage to cramp the natural growth of plants and force them to assume the most fantastic forms. Many of the shapes are curious in the extreme, but the pity is that so much labor and ingenuity should be so perversely employed.

17. Of quadrumanous animals, one is described as "perfectly resembling man, but longer armed and hairy all over, called 'fe-se,' most swift and greedy after human flesh." This is evidently an exaggerated picture of some animal allied to the orang-outang. Of the same order is the "dorre," commonly called the Cochin-China monkey, and remarkable for the variety of its stripes and colors. Still more curious is the "kakan" or proboscis monkey, in which the combined properties of man and beast seem to be ludicrously caricatured.

18. Of feline animals, the lion appears to have only a fabulous existence. Tigers and leopards were at one time so numerous as to have been hunted on a magnificent scale. A small species of wild-cat exists in the south, and bears are frequently mentioned. Both camels and elephants, though not indigenous, are largely domesticated. To the indigenous animals already mentioned may be added the wild hog, porcupine, raccoon-faced dog or Chinese fox, and several species of rats, more especially one of a yellow color, larger than those of Europe, and much prized for its skin.

19. In feathered tribes China is understood to be extremely rich. Pheasants, in particular, are famous both for abundance and for beauty. Among others are the well-known gold and silver pheasants, and above all the barred-tailed pheasant, a most magnificent bird. Water-birds of almost every kind abound, but perhaps the most remarkable is the "leu-tse" or fishing cormorant, the training of which forms an important employment. The reptilia of China include several serpents of monstrous size, not regarded as dangerous, and one of a black-and-white color, hence called "pak-y-hak," which never exceeds three feet in length, but is very venomous. Tortoises of various sizes are common, and are often to be found domesticated in gardens and pleasure-grounds.

20. No country is said to have a more complete ichthyology than China. All its waters —its rivers, lakes, pools, canals, and even ditches, are full of fish. This is partly owing to the artificial means by which the natural supply is vastly increased. Boat-loads of water, containing spawn, are carried to distant parts and deposited in ponds, where the fry, when so small as to be scarcely visible, are fed with lentils or with yolks of eggs.

21. The Chinese belong to that variety of the human race called Mongolian, but in them its harsher features, as represented in the genuine Tartars, are considerably softened. They are generally of low stature, have small hands and feet (and artificially made so small in the females as to become a deformity), a dark complexion, much modified by the degree of its exposure to the open air, a wide forehead, black hair, eyes and eyebrows obliquely turned upward at the outer extremities. In thickness of lip, flattened nose, and expanded nostril they bear a considerable resemblance to the negro. In bodily strength they are far inferior to the Caucasian but superior to most Asiatics, and their endurance of fatigue makes them highly prized as laborers. Perhaps not constitutionally, but certainly in fact, they are most deficient in courage. In their moral qualities there is much that is amiable; but in the great mass these qualities are counterbalanced or rather supplanted by numerous vices—treachery, lying, and nameless abominations.

22. For governmental purposes China Proper is divided into 18 provinces, the names, area, and population of which are as follows.

	Provinces.	Area, sq. m.	Population.	Pop. to sq. m.	Capitals.
Northern.	Pe-che-le or Chihli	58,949	27,990,871	473	Pau-ting-fu.
	Shan-tung	65,104	28,958,764	515	Tsi-nan-fu.
	Shan-si	55,268	14,004,210	253	Tai-yuen-fu.
	Ho-nan	65,104	23,037,171	353	Kai-fung-fu.
Eastern.	Kiang-su (Kiang-nan)	45,500	37,843,501	832	Kiang-ning-fu.
	Ngan-hwui (Kiang-nan)	48,461	34,168,059	704	Ngan-king-fu.
	Kiang-si	72,176	30,426,999	421	Nang-chang-fu.
	Cheh-kiang	39,150	26,256,784	671	Hang-chau-fu.
	Fuh-kien (with Formosa)	53,480	14,777,410	276	Fuh-chau-fu.
South-Western-Central.	Hupeh (Hou-kwang)	70,450	37,370,098	530	Wu-chang-fu.
	Hunan (Hou-kwang)	74,320	18,652,507	251	Chang-sha-fu.
	Shen-si	67,400	10,207,256	151	Sing-an-fu.
	Kan-suh	86,608	15,193,125	175	Lan-chau-fu.
	Sz'-chuen	166,800	21,435,678	128	Ching-tu-fu.
	Kwang-tung (and Hai-nan)	79,456	19,147,030	214	Kwang-chau-fu.
	Kwang-si	78,250	7,313,895	93	Kwei-lin-fu.
	Kwei-chau	64,554	5,288,219	83	Kwei-yang-fu.
	Yun-nan	107,969	5,561,320	51	Yun-nan-fu.

23. The government is an unmitigated despotism. The emperor unites in his person the attributes of supreme magistrate and sovereign pontiff, and as "Heaven's Son" is to Heaven alone accountable. In practice, however, the rigor of this despotism is considerably softened, and the form of government, assuming the name, would doubtless possess many of the realities of the patriarchal. The emperor's principal ministers, four in number, form the interior council chamber, and beneath them are a number of assessors, who form the principal council of state. The government business is distributed among six boards, having cognizance respectively of all civil officers, of revenue, of ceremonies, of military affairs, of crime, and of public works. There is, besides, an office of censors, 40 or 50 in number, who go out into the Empire as imperial inspectors, and are privileged to make any remonstrance to the emperor without endangering their lives.

24. The provinces, either singly or by twos, are under a governor and sub-governor, and each province has also a chief criminal judge and a treasurer. Particular magistrates, estimated at 14,000, preside over particular districts and cities, and, instead of being permanent, are changed about once in three years. The great object aimed at is to maintain a strict surveillance and mutual responsibility among all classes; in other words, to imbue them with fear of the government and infuse a universal distrust.



MANDARIN AND FAMILY.

25. The chief protection of the people is in a body of laws called Ta-Tsing-Liuh-Li, that is, statutes and rescripts of the great pure dynasty, which are held in high regard, and agreeably to which, with occasional violations, all public functions are discharged. The revenue of the Empire, derived from customs, excise, and more especially from a land and house or workshop tax, is payable partly in sycee silver and partly in grain, and amounts to about $120,000,000 a year.

26. The military force of China has been estimated at 1,000,000, but those receiving pay do not exceed 700,000. The real number is of little consequence, as the great body of them are of the most worthless description, scarcely fit for show, and not at all fit for use. The navy consists of two fleets—one for rivers and another for the sea. The war junks are large and showy, but miserably equipped, and so far from being able to cope with a regular enemy, are not able to clear their own seas of pirates. The river fleet has 1,036 vessels or boats, 9,500 men; and the war fleet, 918 ships, 98,421 men; together, 107,921 men. The largest guns do not exceed a 12-pounder, and are so fixed on wooden carriages that they can neither be elevated nor depressed.

27. The Chinese tongue is unquestionably the most ancient spoken, and, with the exception of the Hebrew, the most ancient written language. The written characters appear to have been originally rude copies of the natural and artificial objects designed to be expressed by them, and hence, so far as this system was carried, each separate object must have been represented by a separate character. Better judges, however, declare that seven eighths of the characters have been formed from less than 2,000 symbols, and that any person well acquainted with these can both read and write Chinese. In writing or printing the characters they are not arranged horizontally either from left to right as European languages, or from right to left as in Hebrew and cognate dialects, but in vertical columns, to be read from top to bottom. The art of making paper is said to have been known in the first century, and printing from wooden blocks in the seventh or eighth century, hundreds of years before these valuable arts were reinvented in Europe; and in the books, which have continued since to appear in great numbers, are to be found treatises on almost all subjects—science, history, geography, belles lettres, and poetry—embodying a literature of no mean description.

28. Literary eminence is the sure avenue to the highest honors and offices of the state, and hence, in the words of Dr. Morrison, "the literati are the gentry, the magistrates, the governors, the negotiators, the ministers of China." With such rewards to stimulate industry and tempt ambition, we need hardly say, that among the more comfortable classes, education, of the kind which promises to be best rewarded, is almost universal. For the lower classes,

also, every village throughout the Empire has its school, but the subjects taught are of the most elementary description, and attendance is not so general as was at one time supposed. In cities perhaps half the males receive some instruction; in villages about 1 in 20 can read.

29. The religion of the state, if it may be so called, is that founded by Kon-Fu-Tse or Confucius, about 530 B. C. A kind of sacerdotal college at Pe-king regulates its observance. Buddhism is professed in several provinces, and Tanism, a kind of demon-worship prevalent among the Mongolians, though now decayed, once counted vast numbers of votaries. Attempts to introduce Christianity were made by the Nestorians as early as the sixth century, but the celebrity of the Jesuit missions have thrown all others into the shade. The number of their converts is still nominally great, and bears strong testimony to their subtle policy and unwearied zeal. Various Protestant bodies carry on missionary operations in China, but hitherto with indifferent success.

30. The Chinese are eminently an industrious people, and excel in the principal branches to which their attention has been directed. Their arts, however, are not progressive; and what is known to and practiced by the present inhabitants was equally well known to their forefathers for generations. It would be a mistake to assert that they are acquainted with science, as understood in the west, or its application to the arts of industry. Their agricultural implements are of primitive and rude construction; and their manufactures are all produced by hand; and hence the great agents which have most advanced man in the sphere of civilization are altogether ignored by the inhabitants of this vast Empire.



CHINESE PEASANTRY AND WATERMEN.

31. Rice, the principal food of the people, is the staple crop. The rich alluvial plains which cover a great part of the surface are admirably adapted for its culture, and, by careful management, yield amazing crops. After rice, the staple crops are sweet potatoes and earth-nuts. Among other crops regularly and extensively grown may be mentioned sugar-cane, used chiefly in a green state; indigo, particularly a kind called tein-ching; the castor-oil plant, and numerous plants grown for their roots.

32. Three other plants of the greatest economical importance, and so extensively grown as to form important branches of Chinese agriculture, deserve a separate notice. The first is the mulberry. Judging from the quantity of raw silk exported, and the general use of silk for dress, it is evident that millions of acres must be appropriated to its cultivation. The mulberry farms are small, and are generally worked by the farmer and his family, who not only plant, graft, and cultivate the mulberry, but gather the leaves, feed the silk-worms, and wind the silk off the cocoons. The Chinese silk is much heavier than the Italian, and preferred in fabrics requiring luster and firmness.

33. The second plant more particularly deserving of notice is the cotton-plant. That used in China, and called in the northern provinces the "mie-wha," is of the same species as the American, namely, gossypium herbaceum. The yellow cotton used in the manufacture of "nankeen" appears to be of a more stunted habit than the ordinary gossypium, but has no characters which constitute a distinct species. It is chiefly cultivated in a level tract around Shanghae, forming part of the Great Plain, and is the staple summer crop.

34. But the most important crop raised in China is that of tea. There are two varieties of the plant—thea bohea and thea viridis, and though it was long supposed that the former only yielded the black and the latter the green teas, it is now proved that both kinds of tea are obtained from each. The great tea provinces are Kwang-tung, Fuh-kien, and Cheh-kiang. In the first the thea bohea is grown, and the tea is of inferior quality; in the other two the thea viridis, which yields all the finer qualities, and furnishes the greater part of all that is exported. In these two provinces, where the culture is most extensive and carried to its highest perfection, the tea plantations are usually formed in a deep, rich loam, never on the lowlands, but on the low, hilly slopes. The tea farms, as common throughout China in all kinds of culture, are small, and their management, including not merely all the steps of the culture of the plant, but the preparation of the leaves for market, is almost invariably confined to the farmer's family.



TEA-TREE PLANTATION.

35. The silk stuffs of China have long borne a high name, and in several qualities are still unsurpassed. The embroidery of silk is carried on to an amazing extent, employing millions of the inhabitants. In cotton goods the Chinese might have been supposed to excel, but for the wonderful inventions which have so rapidly carried that manufacture to the highest perfection and produced fabrics which, both for quality and cheapness, defy all competition. Nankeen cloth, however, continues to form an important branch of domestic manufacture. Linen seems not to be made in China. Flax is not grown, but a good substitute for it is found in the fibers of two or three plants, from which the beautiful grass-cloth, similar in appearance to linen, is extensively woven. The only woolen fabrics are felt for the soles of shoes and winter hats, and a sort of rug or carpet. The consumption of leather in China is not great, and the manufacture of it is very imperfect. The porcelain of China has been famous from the earliest periods. The manufacture of the finest forms of it being long known to the Chinese alone, gave them the monopoly of the world; and though in elegance of shape and design they must yield the palm to Europe, for quality of material and rich gorgeous coloring they still hold the foremost place. The manufacture of glass is chiefly carried on at Canton. In lacquered ware the Chinese continue unsurpassed. In working in metals they have only attained mediocrity. Bells and tripods are occasionally made of large size, but the most of their castings are comparatively small. Wrought iron is little used except for nails, screws, hinges, and other small articles. The metallic products most deserving of notice are gongs, mirrors, statuettes in copper and bronze, and various kinds of carved, chased, and filigree work, both in gold and silver. In a great number of minor articles the workmanship is exquisite. Fans, card-cases, seals, snuff-boxes, combs, counters, chessmen of wood, ivory, mother-of-pearl, tortoiseshell, etc., exhibit a finish and delicacy which no other workmen can equal.

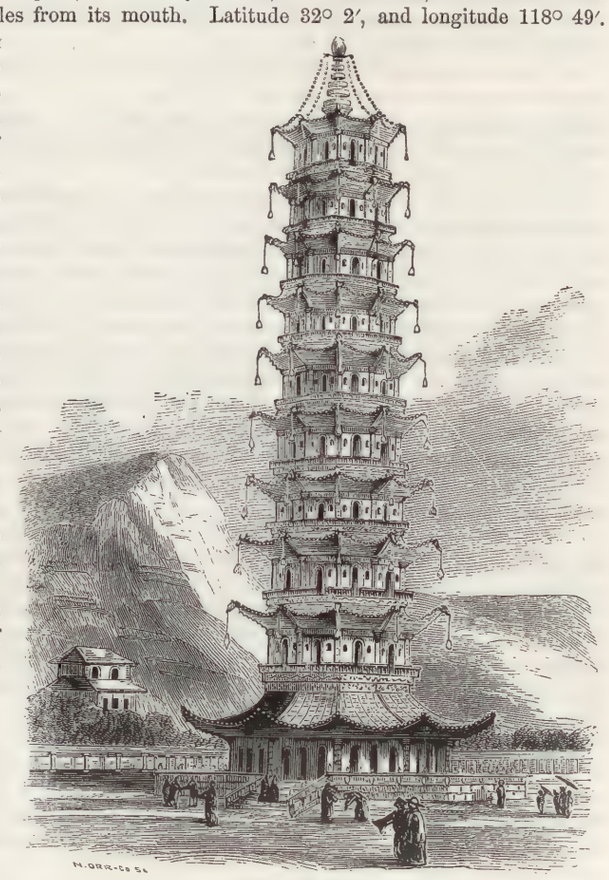
36. The domestic trade of China, aided by the unusual facilities which it derives from a system of water-communication, ramifying like net-work over all its provinces, is of incalculable magnitude. Its rivers and canals are so covered with junks and barges and swarms of smaller boats that there does not seem much exaggeration in the estimate which makes the tonnage belonging to the Chinese little short of the combined tonnage of all other nations. The coasting trade is small in comparison, and is much impeded, not merely by the dangers of navigation, along a coast frequently visited by storms of terrific violence, but by hordes of pirates who are permitted to roam about almost with impunity, and make an easy prey of defenseless traders. The foreign trade of China is carried on through the five ports of Canton, Amoy, Fu-chow-fu, Ningpo, and Shanghae, chiefly with the western nations and by



CHINESE MERCHANTS.

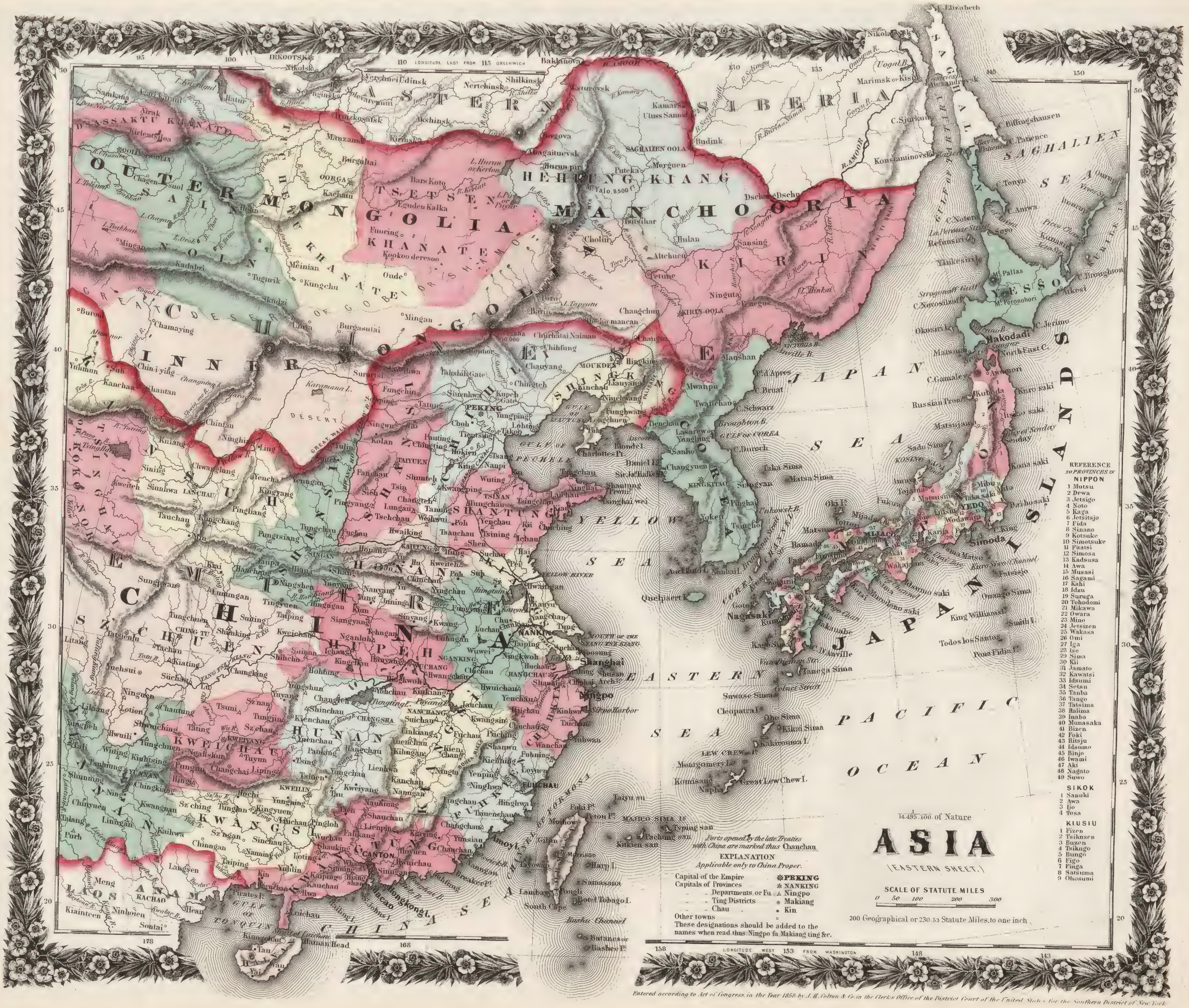
way of Kiachta with Russia. The exports consist principally of teas and silks, and the imports of opium from the East Indies and manufactures from Europe and America. The balance of this trade is very favorable to China, the exports being about double in value to the imports. The difference is paid in silver. The whole foreign commerce, imports and exports, does not, in an average of years, exceed $50,000,000 a year.

37. Nanking, the ancient capital, and a city of 400,000 inhabitants, is built near the Yang-tse-kiang, about 90 miles from its mouth. Latitude 32° 2′, and longitude 118° 49′. Its old walls can be traced over hill and dale for 35 miles; but Nanking has so greatly declined since the transference of the seat of empire to Pe-king, in the thirteenth century, that the modern walls are of much less extent, and the city scarcely occupies an eighth of the surface inclosed by them, and the whole is so commanded by hills as to be ill-calculated for defense. It is divided as usual in Chinese cities into a Chinese and a Tartar town, separated by walls and gates. The streets are narrower than in Pe-king, but handsome, clean, and well-paved. The principal objects of interest are the famous porcelain tower of nine stories and 200 feet in height, and the "tomb of kings," leading to which is a fine paved road with an avenue of gigantic armed figures. The governor's palace and an observatory are also worthy of notice. Nanking has important manufactures of crape, satin of the finest quality, paper, artificial flowers, China or Indian ink, and "nankeen," which hence derives its name. It is the center of a very extensive trade, and by the Great Canal which crosses the Yang-tse-kiang, about 50 miles eastward, it communicates directly with the metropolis. It is also the site of a great military depôt and the chief seat of literature in the Empire.



PORCELAIN TOWER.

38. Pe-king, the capital of China and one of the largest cities of the world (population 2,000,000), is built on a sandy plain between the Pei-ho and its affluent, the Hoang-ho, 100


IRKOOTSK
Nikolsk
Baklanova
R. AMOOR
Nikolaevsk
Elizabeth
EASTERN SIBERIA
Udinsk
Nertchinsk
Shilkinsk
Kamarsk
Ulass Samad
Marimsk or Kisi
Vogal B.
Gorza R.
C. Sjurkum
Konstantinovsk
Budink
SAGHALIEN OOLA
Bissingshausen
C. Patience
SAGHALIEN
Manzansk
Akshinsk
Kirinska
Bergova
Bagaituevsk
Burun pir
Puteka
Merguen
HEHLONG KIANG
Tonyn
SEA OF OKHOTSK
Amwa
Kamuy
Pieter Chan
Kurile Is.
OUTER MONGOLIA
SAISSAKTU KHANATE
Burgultai
OORGA
Kachau
Bars Koto
Egudeu Kalka
Euoring
Kookoo deresoo
TSETSEN KHANATE
Yalo. 8500 ft.
MANCHOORIA
Tsitsihar
Cholun
Hulan
Sansing
Dschaldschi
Refunsan
Yankeesan
C. Notoro
La Perouse Str.
Soya
Kamuy
Mt. Pallas
YESSO
Broughton
Arkost
Mt. Poronohori
C. Novosilsk
Strogonoff Land
C. Jeremo
Okosinsk
Hakodadi
North East C.
Matsmai
Awamori
C. Gamalei
Kuboda
Kuro saki
Russian Farm
Iisuo saki
Masujama
Kenday
Sado Sima
Kona saki
Mabu
Yedo saki
Daibusaki
Simoda
King
Wodawara
Fusi
Karija
Fuji
Mijadsi
Fukui
Matsmai
Tottori
Hamada
Tsuyama
Okayama
Wakajama
Osaka
Nagasaki
Kagosima
Kiusiu
Tanega Sima
Omango Sima
Todos los Santos
Pona Fidma
King Williams I.
Swain I.
Quelpaert
Saghalien
Kiusiu
Nippon
Sikok
Tanega Sima
Swase Sima
Cleopatra I.
Oke Sima
Kikem Sima
Kakizoonna I.
Lew Chew Is.
Montgomery I.
Komisang
Napier
Great Lew Chew I.
JAPAN
SEA OF JAPAN
EASTERN OCEAN
PACIFIC
Great Desert of Gobi
INNER MONGOLIA
Chamaying
Yulumun
Suh
Chin-i-ying
Kanchan
Chantan
Buroo
Mingan
Kungchu
Meinian
Kadabzi
Tugimrik
Skidzi
Burgasutai
Changchun
Kirin oola
Ninguta
Penegue
Kirin
Changchun
Churchatai Naimancan
Chihfung
Chauyang
Mukden
Liaoyang
Hingking
Kinchau
Ninechwang
Mwanpu
Twanchau
Schwarz
Lasarewo
Yanghing
Broughton B.
Gulf of Corea
Sea of Corea
Yellow Sea
Shingking
Shihling
Tahshih Gate
Sumiatsi
Fungching
Suenhwa
Kupeh Gate
Chingtch
Peking
Tungping
Lohting
Tatung
Choh
Tsingsing
Hokien
Naupi
Kolan
Yulin
Kulang
Ninghi
Ling
Chintan
Tsingchau
Fanchau
Slumtsch
Wuting
Kwangping
Tsinan
Tsingchau
Laichau
Kiau
Changchau
Tsaochau
Yenchau
Kichau
Tsining
Ichau
Shen
Suchau
Hai
Kaifung
Kweitcha
Poh
Suh
Hwaiking
Hopang
Kaifung
Yellow River
Hwaingan
Kaifu
Nanyang
Chinchau
Kungchau
Tungchau
Fuchau
Pingyang
Lungan
Tsechchau
Weihwui
Tsauch

miles from the mouth of the former in the Yellow Sea, and 30 miles south of the Great Wall. Latitude 39° 54′, and longitude 116° 29′. It consists of two contiguous cities, each separately encircled by lofty walls, together entered by 16 gates, and occupying an area of 26 square miles. Much of this space, however, is occupied by gardens and inclosures, and more than an ordinary surface is taken up by houses on account of their being of seldom more than one story high. The south or Chinese city, the seat of commerce and residence of the bulk of the population, is intersected throughout by four wide and regular thoroughfares, which abound with shops of all descriptions; and at the points where these streets intersect are large arches; but except these, and a temple to the god of agriculture, there would seem to be no edifices in this quarter deserving notice. The houses are of brick, with red tiled roofs, and the city unpaved and undrained. The Tartar or imperial city consists of three separate inclosures—the outer of these, formerly appropriated to the Tartar garrison, is now mostly occupied by Chinese traders, and also contains five of the supreme tribunals of the Empire. The second inclosure is six miles in circuit, and entered by four large and several smaller gates; in it are extensive public granaries, a military arsenal and seminary, the college and buildings of the Russian embassy, an astronomical and magnetic observatory, the great temples of ancestors and of peace, the national college, and the residences of the great dignitaries of the Empire. The inner inclosure or "forbidden city," with walls two miles in circuit, faced with yellow tiles, and surrounded by a moat faced with masonry, is appropriated to the public and private palaces of the imperial family, and has a magnificent temple of the imperial ancestors, pavilions, gardens, etc. Outside of both cities are open suburbs, and Pe-king has, besides its numerous temples and pagodas, a fine mosque, a Greek church and convent, and a Roman Catholic chapel. About 10 miles west-northwest is an imperial park, covering at least 12 square miles, and containing 30 palaces of the emperor and his great officers. The city has a large printing and bookselling trade, and manufactures of colored glass, idols, and other articles; but the inhabitants depend chiefly for subsistence on employment connected with the court. The Pei-ho is navigable for boats to within 20 miles of the city, and communicates with the Grand Canal, by which most of the provisions for the supply of the city are conveyed.



NEW CHINA STREET, CANTON

39. Canton — (Kwang-chau-fu), on the left bank of the Hong-kiang or Canton River, about 70 miles from its mouth, is the great commercial emporium of the Empire. Latitude 23° 7′, and longitude 113° 15′. With its suburbs it occupies the north bank of the river, extending inland nearly to a row of heights commanding it on the north, but between which and the city is a broken ravine; to the south is an alluvial plain formed by the delta of the river. The city is inclosed by brick walls on a sandstone foundation, six or seven miles in circuit, and entered by twelve gates; and it is unequally divided by another wall, with four gates, into the old and new towns, in the former of which are the residences of the high officers, the public arsenal, etc. The walls are in some places mounted with cannon, and both the northern heights and some islands in the river are fortified, while various detached batteries guard the river approach. The suburbs are nearly as large as the city itself; on the south they stretch along the river side, and at their southwest corner are the "hongs" or foreign quarters—a long range of buildings separated from the river by a quay. There are in all thirteen hongs, including those belonging to the British, Dutch, American, and other merchants. The whole territory allotted to foreigners is, however, comparatively limited. The city and suburbs are laid out and built after a uniform plan; the streets narrow and crooked, and each inclosed by a gate, and each of the trading thoroughfares appropriated to one trade. The manufactures of Canton are various and extensive, and large numbers are employed in silk weaving, in the manufacture of cloths, and in making shoes. Great numbers also work in wood, stone, iron, brass, etc., and the book trade is considerable. The markets abound with all kinds of provisions, and the city is well supplied with water from reservoirs and springs. A million of people are said to be located here, a large part of whom reside on the water, and for four or five miles opposite to and above and below the city the river is crowded with floating dwellings.—Whampoa is a town and anchorage pleasantly situated on the east side of an island of the same name, at the foot of a green and wooded hill, in the river, and 12 miles east-southeast of the city of Canton. Its most conspicuous object is a stately pagoda, 120 feet high, built of brick, and commanding from its summit fine views of the varied scenery of the adjacent hills and valleys, and of the extensive and animated navigation. The anchorage, extending along a reach of the river nearly four miles long, affords a safe and commodious station for foreign shipping, which the shallowness of the water and exclusiveness of the Chinese concur in detaining here to receive their cargoes from the factories of the city, by means chiefly of country boats called sampans.



WHAMPOA, FROM DANE'S ISLAND.

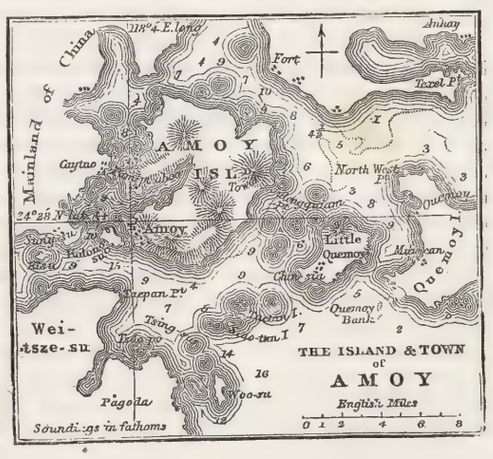
40. Hong-Kong, an island off the coast, east of the entrance of Canton River, in latitude 22° 12′, and longitude 114° 13′, and now erected into a British colony, is about eight miles long by from two to six miles wide. Area 32 square miles. The surface is mountainous and bare, but the island possesses some good roadsteads, and is important in a military point of view. The government is vested in a governor and council, subject to the sovereign. Population 32,983. On the north coast is the capital town, Victoria, and on the south the village Stanley, connected by a good road, and another newly-made road extends nearly round the island. Hong-Kong was ceded to the British 25th June, 1843.

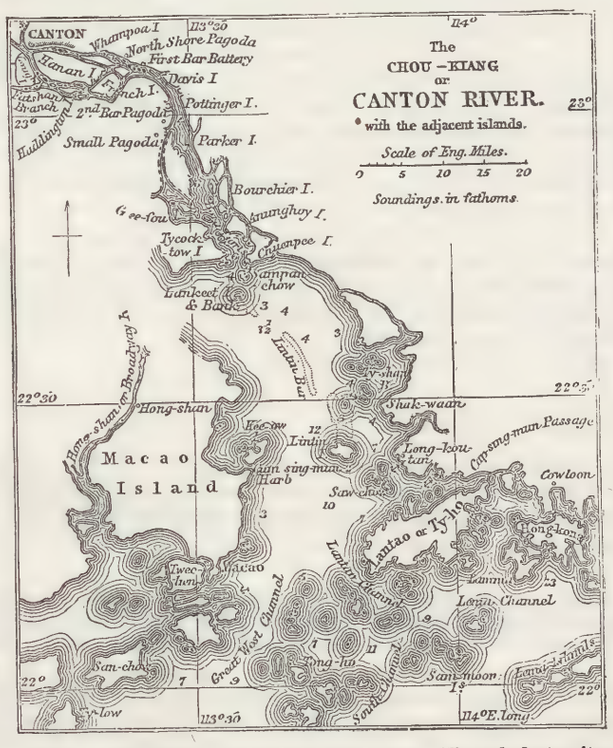


HARBOR OF HONG-KONG.

41. Amoy (Hai-mum), a city of 250,000 inhabitants, on an island of the same name in a bay of the China Sea, opposite Formosa, is an important sea-port, and was formerly the great military depôt of the province of Fuh-kien. Latitude 24° 40′, and longitude 118° 20′. The city is well fortified, and the harbor admits shipping to the quays.

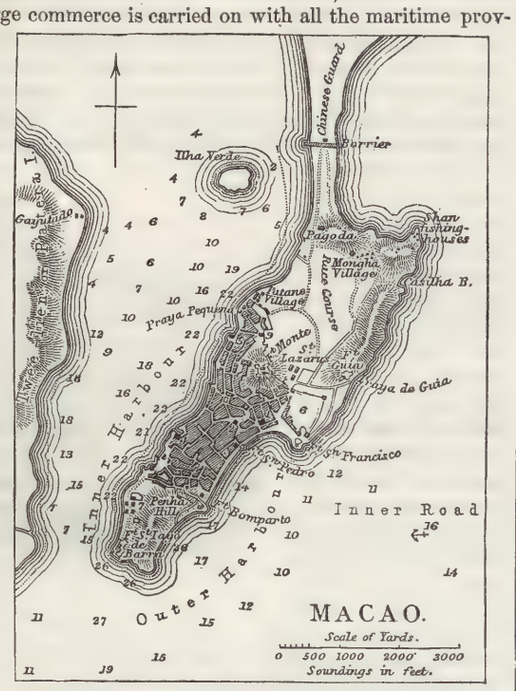
42. Fu-chow-fu (Fuh-chau-fu), on the Min River, 28 miles from its mouth, and in latitude 26° 12′, and longitude 119° 30′, is surrounded by an amphitheater of hills, and inclosed by castellated walls 9 or 10 miles in circuit, outside of which are extensive suburbs. Population 500,000. The whole is commanded by a fortified hill 500 feet above the plain, and inside the walls is another height crowned by a conspicuous watch-tower. The walled city is considerably superior to Amoy, and its streets are lined with good houses and shops. Large quantities of cotton goods and well-dyed blue cloths are manufactured here; and 500 ovens for the production of porcelain are constantly





employed in the city and vicinity. Near it are also extensive lead mines, and the black tea district is within 70 miles of it. A large commerce is carried on with all the maritime provinces, and with the Lew-chew and Japanese islands.

43. Macao is a sea-port town on a peninsula of the island Macao, at the southwest entrance of the Canton River, 70 miles south-southeast Canton. Latitude 22° 11′, and longitude 113° 32′. The harbor north and west of the town is fit only for small vessels, and large vessels anchor in a roadstead east of the island. The trade of Macao is nominally restricted to Portuguese and Spanish shipping, and the Portuguese exercise a sort of municipal authority over the town, in accordance with a grant from the Emperor in 1586 in return for assistance against the pirates.



1. Cathedral.
2. Senate House.
3. Government House.
4. Custom House.
5. Chinese C. House.
6. Bishop's Gate.
7. Barre Pagoda
8. St. Lazarus Gate.
9. St. Antonio Gate.

44. Ningpo is a walled city admirably situated for trade at the junction of three streams, which, united, flow to the ocean, 11 miles distant, under the name of Tatsieh, and immediately opposite Chusan. Latitude 29° 55′, and longitude 121° 22′. The city contains many public buildings, temples, pagodas, etc., but does not exhibit much grandeur. The most striking edifice is the Tower of Ningpo, a hexagonal seven-storied building, upward of 160 feet high, and, according to Chinese annals, first erected 1,200 years ago. Ningpo, which contains 300,000 inhabitants, has large manufactures of silk, and an active coasting trade.

45. Shanghae, on the Wu-sung River, about 14 miles from the sea, stands on a level and highly cultivated plain, and is inclosed by a wall five miles in circuit, outside of which are populous suburbs. Latitude 31° 12′, and longitude 121° 28′. It is a large manufacturing place, and the native trade is here probably more extensive than at any other city in China. Population 200,000.



CITY OF SHANGHAE.

46. Besides the above-named places, China contains many other cities and large towns; but these have less foreign fame. Altogether the Empire contains 1,572 towns of various importance, and it may here be stated, that except in extent there is a great sameness of plan and purpose. The suburbs of most of them are larger than the walled inclosures.

47. Civilization was far advanced in China when it was in its first dawn in Europe. Their earliest existing records consist of the compilations of Confucius, 550 B. C., from which period they descend in an unbroken series to the present day. Under their earliest (the Tsin) dynasty, they attained considerable prosperity, and tempted the rapacity of the Tartars, as a protection against whose incursions the Great Wall was built. About the end of the second century the Empire was divided into three states, and continued so till A. D. 585, when it became united under one ruler. Three centuries later, the right to the throne was disputed, and civil war raged till an adjustment took place by the establishment of the Tsoong dynasty under Taetsoo, A. D. 950. Under this dynasty great progress was made in literature and art.

48. New inroads of the Tartars now pressed the Chinese so hard that they called in the aid of the Mongols, who freed them from their oppressors, but gave them a new master in the celebrated Kublai Khan, who founded the Mongol dynasty, and removed the capital from Nanking to Pe-king. His ninth descendant was driven from the throne, and a native dynasty, called Ming, again succeeded in 1366, in the person of Hungwu. A long period of peace ensued, but was broken in 1618, when the Manchus, a mixed Tartar and Mongol race, gained the ascendency, and, after a war of 27 years, established the existing Tartar dynasty in the person of Shunchy. According to the Chinese, their dynasties, 26 in number, embrace a period of about 5,000 years, during which 236 sovereigns have held the throne.

49. The earliest authentic accounts of China, published in Europe, are those of Marco Polo, who visited the country in the thirteenth century. The first British intercourse was attempted under Queen Elizabeth, in 1596, but the vessel sent did not reach its destination. A trade was subsequently established by the East India Company, but no direct intercourse between the governments took place till the embassy of Lord Macartney, in 1792. A second embassy, in 1816, by Lord Amherst, was treated with insolence, and returned with a letter from the Emperor to the Prince Regent, bearing, among other things, "I have sent thine ambassadors back to their own country without punishing them for the high crime they have committed." The arrogance thus manifested could not fail, sooner or later, to bring on a collision; and accordingly, in 1841, the British, on being refused redress for injuries, partly real and partly alleged, proceeded to hostilities, and after scattering, almost without a struggle, every force which was opposed to them, were preparing to lay siege to Nanking, when the Chinese found it necessary to sue for peace. The difficulties in the way of a peaceful commerce, however, have not been entirely removed, and collisions between the native powers and foreigners are not unfrequent. At the present time (1858) the British and French are at war with the Empire.

MANCHURIA.

50. Manchuria occupies the northeastern section of the Empire, and is bounded northwest and north by Russian Siberia, east by the Sea of Okhotsk, the Gulf of Tartary, and the Sea of Japan, and on the southeast by Corea and the Gulf of Pechelee. Its area is estimated at 700,000 square miles.

51. Several mountain systems traverse Manchuria in various directions; mostly, however, from southwest to northeast. Of these the most marked is the Yablonnoi chain. An extensive range also runs parallel to the coast, and in some places so near that a strip only of arable land is left, inhabited by a peculiar race, holding little intercourse with the Manchus; and another considerable range, called the Khinghan Mountains, traverses the western part of the country from south to north.

52. Nearly the whole of this vast territory is drained by the Amoor or Saghalin. The other principal rivers are the Songari and Ousuri, both flowing south to north, and the Silimpadi and the Tchikiri from north to south, to the Saghalin. There are three considerable lakes in Manchuria, the Hurun, Pir, and Kiuka. The Kiuka, about 40 miles long and 25 miles broad, is the source of the Songatchan, one of the head streams of the Ousuri. In the southern parts Manchuria is tolerably fertile and well cultivated, resembling, in this respect, the richer countries of Asia; but in the north the aspect is thoroughly Siberian.

53. The mountains are covered with vast forests of fine timber, chiefly pine, forming a retreat for numerous wild animals, the hunting of which, and trading in their skins, form the chief means of support to the population of this region. The flora is chiefly of European genera, but Asiatic species; and it is one of the chief localities whence the Chinese obtain the wonder-working ginseng; and rhubarb is extensively cultivated. The rivers and coasts abound in fish, and the pearl fishery is carried on by government.

54. The Manchus are of Tungusian origin, and are somewhat civilized, and possess even a written language. They are divided into several tribes, differing slightly in degree of progress, but physically identical. They are more robust than the Chinese, but have less expressive features. The Manchus, however, are a rude people, and their conquest of China has greatly injured the country by withdrawing to the imperial capital the best portion of its people. They have neither temples nor idols, but worship one Supreme Being, and their religion appears to be a kind of Shamanism.

55. Manchuria is divided into the three provinces of Shing-king or Leao-tong in the south; Kirin, comprising all the region east of the river Songari, and in the north a large area west of it, and also the north part of the island of Tarakai or Sagalin; and Tsi-tsihar, comprising the northwestern section of the country, a large portion of which is included in the valley of the Nonina. The administration of Manchuria consists of a supreme civil government and three provincial military governments; but in Shing-king the government is both civil and military. All the officers, civil and military, are Manchus, and a great portion of them belong to the imperial clan, or are intimately connected with it. The civil government is carried on by means of boards or commissions, as in China Proper.

56. The most important towns are Moukden, Kin-chau, Kirin-oola, Fung-whang-ching, etc. Moukden, the capital of Leao-tong, and seat of the supreme government, is built on an eminence, about 380 miles northeast Pe-king, in latitude 41° 50′, and longitude 123° 20′, and is surrounded by a wall ten miles in circuit, within which another wall three miles in circuit incloses the residence of the imperial viceroy. The palace and the buildings connected with it, the government offices and courts, and the grounds are all arranged on a plan similar to those of Pe-king. It was the last residence of the Manchu sovereigns before their conquest of China, and the place in which the early emperors of the reigning dynasty were buried. Kin-chau is the port of Moukden, and carries on a considerable trade in cattle, pulse, and drugs. The harbor is shallow, and exposed to the south gales. Kaichan, another port on the gulf, possesses a better harbor, but is not much frequented. Kirin-oola is the capital of the province of Kirin; and Tsi-tsihar the capital of that of Tsi-tsihar. None of the other towns are important.

57. In the seventeenth century the Manchus invaded China and placed their leader's son upon the throne. Since that time the Manchu dynasty has continued to reign in China, and the Manchu language has become the court and the official language. Since 1854 the Russians have occupied all the country north of the Saghalin and have commenced settlements along the course of that river.

COREA.

58. Corea (Tsyo-sien) is a peninsula lying between the Yellow Sea on the west and the Sea of Japan on the east, and is continuous south with Manchuria. Length 580, and breadth from 200 to 260 miles. It includes also numerous islands lying to the south. Area 52,000 square miles.

59. The only known feature in the physical geography of Corea is the existence of a high chain of mountains which stretches through it at a short distance from the east coast. The general inclination of the greater portion of the country is toward the Yellow Sea. The eastern coast is precipitous and rocky, the southern and western is skirted by numerous islands. Though in the latitude of Italy, Corea is said to have a cold climate, but the soil is fertile and well cultivated. The mountains of the north are covered with vast forests, but their only valuable product is ginseng. The southern districts abound in great agricultural wealth, and produce hemp, tobacco, silk, fruits, etc.

60. The Coreans are a well-made race, with an agreeable physiognomy and very polished manners. The arts and sciences, and the language of the Chinese have been introduced among them. The literati form a separate order in the state, and make use of the Chinese language and characters; but the vernacular tongue is quite different, and has an alphabet of its own. Their religion is the same or nearly the same as that of China. Politically the country forms a separate kingdom, whose ruler is absolute within his own dominions, but is nevertheless a vassal of China, and sends annual presents and ambassadors to Pe-king. Formerly Corea was defended from the Manchus by a great wall or rampart along its northern border, but this is now materially decayed.

61. The Corean towns have nearly the same general appearance as those of China; but the houses are built of mud, without art, and are inconvenient. King-kai-tao, on the Kiang River, near the middle of the peninsula, is the capital. Tinghai, to the southeast, is its port. Yang-sing, in the northeast, and Vang, in the southwest, are both sea-ports; and these, with Hoang, northwest of the capital, are the only towns of any importance.

62. Corea was first subjected by the Tartars; but in about 1120 the Chinese appear to have gained possession of the country. The Japanese conquered it in 1692 and held it for six years, when it again fell under the sway of China, and has since been tributary to that Empire.

MONGOLIA.

63. Mongolia, to the west of Manchuria, is situated between latitudes 35° and 52° north, and longitudes 83° 40′ and 125° 30′ east; and has an area of about 1,400,000 square miles.

64. The central portion of this extensive tract is occupied by the great sandy desert of Gobi, having an area of 300,000 square miles, interrupted only by a few spots of pasture and low bushes. Wide tracts are flat, and covered with small stones or sand; and widely separated from one another are low hills destitute of wood and water. The general elevation of this region is 4,220 feet above the sea. Mongolia is intersected at various points by chains of lofty granite mountains, the summits of which are in many parts clothed with a variety of trees. The principal ranges are the Altai and its subordinate chains, extending east, under various names, as far as the banks of the Saghalin, and the Ala-shan and In-shan ranges. Its rivers are numerous, particularly in the north, where occur the Selenga, Orkhov, and Tola, which unite their streams and flow into Lake Baikal, and the Argun and Onon, tributaries of the Saghalin. In the south are the Siramuren, and its branches, with several others in the region of Koko-nor. The chief lakes, south from the desert, are Koko-nor or the Azure Sea and the Chasun and Dzaring, near the sources of the Yellow River. In the northwest are the Upsa-nor, Altai-nor, Alak-nor, and the Iki-aral.

65. All the plains of Mongolia are intensely cold in winter, and in some of the eastern parts, bordering on Chihle, the people make their houses partly under ground, to avoid the inclemency of the season, the hills to the north being too low to screen the country from the polar blasts. In summer, again, the heat is in many parts so great that not even a blade of grass can grow. The space on the north of Gobi, to the confines of Russia, about 150 miles wide, is warmer than the desert, and supports a greater population than the south side. The thermometer in winter falls 30° and 40° below zero, and sudden and great changes are frequent.

66. Many large portions of Mongolia, both south and north of the Gobi, are sufficiently fertile, and might be turned to good account by the natives, but for their preference of a nomadic to an agricultural life, choosing rather to wander about with their herds and flocks than to cultivate the soil. Pines, fir, birch, ash, elm, and white poplar grow on the mountains, and in the same region are found red currants, wild peaches, and various shrubs. A little millet, wheat, and barley indeed are grown, but the chief dependence of the people is on their cattle and on the corn which they receive from China in exchange for their sheep and other animals.

67. The wild animals of Mongolia are boars, bears, wolves, hares, foxes, sables, and squirrels; there are also wild horses and goats. The birds comprise cranes, wild geese, ducks, moor-fowl, quails, and swans. The rivers abound with fish.

68. The Mongols are of the middle size, but muscular and strongly built; their faces broad, square, and flat; noses particularly low and flat; eyes small, oblique, black, and keen; thick lips, short chin, with very little beard, and large and prominent ears; hair black and strong, almost wholly shaven out, excepting a little tuft on the crown. They live principally on milk, butter, and cheese. Horse-flesh is considered a delicacy. Their favorite national liquor, as among all the Tartar nations, is kounass or koumiss, fermented mare's milk, in which they often indulge to excess. In religion they are Buddhists. Polygamy prevails among them, and divorces are frequent. The Mongols form the principal stock of a race widely diffused over the plateaux of central Asia, and consisting of two great divisions, the Eastern or Mongols proper, and the Western or Calmucks. The former only are found in Mongolia.

69. The principal divisions of the country are—Inner Mongolia, lying between the Great Wall and the desert of Gobi; Outer Mongolia, between the desert and the Altai range; the country about Koko-nor, and the dependencies of Uliasutai in the northwest. The whole of this region has been included under the comprehensive name of Chinese Tartary. These are further divided into tribes and standards, each of the latter comprising about 2,000 families, and each is governed by its own khan or prince.

70. The principal towns of Mongolia are—Uliasutai, Urga or Kurun, Kiachta, etc. The first named is the residence of a Manchu viceroy; Urga is the seat of the supreme tribunals and of a Buddhist high-priest, and Kiachta, on the northern frontier, is the entrepôt of the trade between the Russians and Chinese. Cobdo, in the northwest, is also a noted town.

71. In the beginning of the thirteenth century Genghis Khan united the different races under his sway; and in the course of his devastating conquests, both westward and southward, made the Mongols, of whom little had been previously heard, to occupy an important page in the world's history. The conquests of Genghis Khan were extended by his son Oktai, who subdued the whole of China and overthrew the caliphate of Bagdad, while other hordes, under the khans Manku and Batu, forced their way into Russia, devastated large portions of it, pillaged Moscow, entered Poland in 1240, and were threatening all Germany with destruction, when, in 1241, their progress was arrested by their signal defeat at Wahlstatt.

72. After the death of Oktai, in 1243, all further attempts on Europe ceased; but nearly half a century longer the empire which he had established continued to flourish, and stretch from the Chinese Sea west to the frontiers of Poland, and from Hindoostan north to the frontiers of Siberia.

73. At a later period, under Timur or Tamerlane, the Mongol Empire, which had been gradually crumbling to pieces, acquired new luster. But the revival proved temporary, and at his death a complete disruption took place. The fragments, however, were so large as in some instances to be sufficient to found new dynasties. One of the most important of them was that of the Sultan Baber, who, in 1519, founded the empire of the great Mogul, in Hindoostan, and kept at Delhi a court of almost unrivaled splendor, of which some faint traces are still exhibited by his descendants.

ILI—SONGARIA AND CHINESE TURKESTAN.

74. Under the general term of Ili is comprehended all the vast territories forming the western portion of the Empire. It is situated between latitudes 34° 40′ and 49° north, and longitudes 70° 30′ and 96° 25′ east; and contains an area of about 900,000 square miles.

75. The Tien-shan or Celestial Mountains divide the country into two regions: that on the north is called Tien-shan-pelu or Songaria and that on the south Tien-shan-nanlu or Chinese Turkestan. Ili, taken as a whole, may be regarded as an inland isthmus extending southwest from southern Siberia, between the desert of Gobi and the Caspian deserts to the Kuen-lun Mountains. The former of these deserts incloses it on the southeast, and the latter on the west.

76. Little is known of the topography of the country or of its productions, but the efforts of the Chinese have been systematically directed to developing the resources by stationing troops in every part who cultivate the soil, and by banishing criminals thereto who are obliged to work for and assist the soldiers. The productions are numerous; wheat, barley, rice, and millet are the chief cereals cultivated; tobacco, cotton, and fruits are grown, and the people have large numbers of horses, cattle, camels, and sheep. The mountains are wooded and supply abundance of game, and the lakes and rivers are well stocked with fish.

77. The climate is exceedingly dry, and the soil owes its unfruitfulness rather to the want of water than to natural defect. The mineral products are gold, iron, and copper; and several volcanic products, as sulphur, sal-ammoniac, saltpeter, etc., obtained chiefly in the volcanic region on the east of the Tien-shan range.

78. The inhabitants are composed of Eleuths, Mongols, Manchus, Chinese, and several native tribes. Tibetans are settled at Khoten. They are almost entirely agricultural and pastoral, and yet there is a considerable trade carried on with China Proper and the Russians.

79. Ili is primarily divided, as before stated, into Songaria and Chinese Turkestan, the latter of which is also known as Little Bokhara. Songaria is further divided into three commanderies—Ili on the west, Targabatai on the north, and Kur-kara-usu on the east. The subdivisions of Turkestan are regulated by the position of the eight Mohammedan cities—Harashar, Kuché, Ushi (including Sairim and Bai), Oksu, Khoten, Yarkand, Kashgar, and Yingeshar. The supreme command of the whole of Ili is intrusted by the colonial office to a Manchu tsiang-kiun or military governor-general, resident at Kuldsha, in Ili, who has under him two councilors to act in civil cases, and thirty-four residents stationed in the various subdivisions of the country. The governor-general also commands the troops of Kan-suh, but has nothing to do with the civil jurisdiction. The revenue is derived from a capitation tax and tithes on produce and stock.

80. This country was overrun by the Mongols under Genghis Khan. Songaria subsequently belonged to a Mongol tribe called Songarees; but at the end of the seventeenth century the emperor of China, after a long and bloody war, effected its subjugation. Turkestan, from the first century, A. D., was subject to the Chinese, but between the fifth and seventeenth centuries was successively under the sway of Tibet, the Mongols, and Songarees. In 1756 it was reconquered by the Chinese.

BOD OR TIBET.*

81. Tibet is situated between latitudes 27° 20′ and 35° 30′ north, and longitudes 73° 30 and 99° 40′ east; and is bounded on the north by the Kuen-lun Mountains, on the east by China Proper, and on the south and west by the Himalaya range. The area is estimated at 700,000 square miles.

82. Tibet occupies the southern portion of the great table-land of central Asia, and as a whole is probably the most elevated country on the surface of the globe. Its plains average from 10,000 to 12,000 feet absolute height, and many of its mountains rise to more than double that elevation. The latter generally extend in ranges parallel to those of the Himalayas, leaving between them narrow valleys and deep ravines. In the east, however, the mountains have a north-and-south direction, inclosing the upper courses of the rivers of India beyond the Ganges; and within the limits of Tibet rise nearly all the great rivers of southern and western Asia. Lakes are numerous: the Tengri-nor and Booka-nor are remarkable for their size; Lake Paltee surrounds like a ring a large island of its own shape, and Manasarowai and Ravanahrada are regarded as sacred lakes. Several passes of the Himalayas connect Tibet with Hindoostan, and of these a few are practicable for horses.

83. Tibet is extremely rich in minerals. Gold is found in lumps, in veins, and in river sands, and the quantity obtained is very large. At Lithang there is a silver mine; at Rywulse

* The extreme western portion of this country, called Little Tibet or Bultistan, is included in the dominions of the maharajah of Cashmere, and Ladak, adjoining this on the east, is not under Chinese rule, its inhabitants recognizing only the spiritual authority of the Talé-Lama. The latter is a great depôt for the wool used in the shawl manufacture of Cashmere. Neither will require further notice.

an iron mine; and at Bathang mercury and native cinnabar are found. In many spots there exist rock-salt, lapis-lazuli, and turquoise. Nearly all the lakes are brackish, and in many parts tincal, niter, etc., effloresce on the soil. Coal has not yet been discovered; and otherwise in the scarcity of fuel an insuperable obstacle to the progress of mining industry exists.

84. The climate is remarkable for its extreme dryness. In the spring, however, the weather is variable, and thunder-storms with occasional showers are frequent. Near H'Lassa the trees bud in April. From June to September heavy rains prevail, which inundate the countries of southern Asia; but from October to March so little moisture exists in the air that vegetation is almost wholly dried up and the cold is intense. It is also worthy of remark that the line of perpetual snow is considerably higher in Tibet than on the southern declivity.

85. Black barley forms the basis of all Tibetan diet, and except it and culinary herbs, almost all vegetable products for food are brought from the south and west. In a few sheltered valleys the peach and other fruit trees flourish, and timber of an unusual size for Tibet; but wood of all kinds is very scarce; and argol, or the dung of animals powdered and mixed with earth, is the fuel chiefly consumed, and with this even metals are smelted.

86. Animals both wild and domestic are numerous. In the east, where the herbage is richer than elsewhere, large herds of cattle and sheep are fed, and even in less favored localities herds and flocks constitute the chief wealth of the people. The sheep are reared with great care, and the skins, which are of great fineness, are largely exported to China. The bhoral (ovis ammon) is a large sheep from 3 to 3½ feet in height and from 5½ to 6 feet in length, exclusive of the tail, and like most of the native quadrupeds is covered with a long hair or fur. It is the principal beast of burden in the transit of merchandise across the Himalayas. The yak (bos grunniens) furnishes excellent milk and butter, and its flesh is an important article of food. Large herds of wild oxen of a formidable character pasture alternately in the valleys and on the hills. The shawl-goat (capra hircus) is an important source of national wealth, its woolly hair being used for the manufacture of the finest shawls, and for this purpose large quantities are annually sent into Cashmere, together with the hair of the yak and of some breeds of dogs. The Tibetan horse is small, but spirited and handsome. Deer of various kinds are met with; also antelopes, goats, lynxes, badgers, bears, etc.; and wild fowl and other birds are very abundant.

87. The Tibetans belong to the Mongolian family, and in disposition are a mild, generous, and friendly race. Their color is somewhat swarthy, but among the upper classes are individuals as white as Europeans. Their diet consists chiefly of barley, mutton, horse-flesh, and yak-beef. The peasantry are mostly clothed in sheep, goat, or jackal skins—in the towns, however, red and yellow woolens replace the garments of skins, and the higher classes wear silks and cloaks lined with fur; and jewelry and trinkets are much worn. Female costume is very much similar to that of the men; the latter wear their hair long, and the women wear it in braids. The females are not secluded as in Mohammedan countries, but are actively engaged in commerce and as shop-keepers. The practice of polyandry, by which one woman becomes the wife of several brothers, is common.

88. Tibet may be styled the Popedom of Asia—it is the center of Buddhism, and is accordingly regarded as a sacred land by nearly all the Mongol race. Buddha is considered as the necessary independent Being of the universe, and the beginning and end of all things. Like Brahma, he is worshiped under a variety of manifestations; and it is believed that Buddhism and Brahminism are but two offsets from a primitive religion which once prevailed over the whole of Asia beyond the Indus. At least one third of all mankind are counted within the pale of these two sects. The lamas or priests form a very large portion of the whole population, and reside in lamaseries or monasteries, some of which are capable of lodging from 3,000 to 4,000 lamas. They are supported by the proceeds of their own lands and government subsidies, while not a few of them are mendicants. Otherwise in organization, ceremonies, costumes, and devotional exercises, these confraternities bear a strong resemblance to those of the Roman Church. Convents for women are also common; and to each of these is attached a school and printing press.

89. The Grand Lama or Talé-Lama, who is at the head of the hierarchy, resides at the Buddha La, a vast palace near H'Lassa. He is deemed to be the principal living incarnation of Buddha, and as such he receives actual worship; and, like the Pope, he is sole religious and political head of the state. The hutuktus or spiritual governors of provinces, who form the high sacerdotal college, are also believed to be incarnations of the deity; and the lamas, who are the heads of lamaseries, are likewise deemed to be living Buddhas. The chief of the supposed incarnations, next to the Talé-Lama, are the Bantchin-Remboutchi, the Guison-Tamba, the Tchang-kea-fu (or grand almoner of the imperial court), and the Sa-Dcha-fu. The Bantchin-Remboutchi is scarcely inferior in sanctity to the Talé-Lama.

90. Tibet is divided into—Wei-Tsang (anterior or eastern) and—Hou-Tsang (ulterior or western) Tibet. The capital of the former is H'Lassa, the residence of the Talé-Lama and the metropolis of Buddhism, and that of the latter is Chashe-lo-um-bu, the seat of the Bantchin-Remboutchi. These provinces are subdivided into inferior districts, each under the superintendence of a hutuktu or governor; and in each of the capitals is a Chinese military governor, with command over the forces, which usually amount to 60,000, chiefly cavalry, and in addition to which the Chinese authorities have power to draw troops and supplies from the adjacent province of Sz-chuen, between which and H'Lassa several detached garrisons are stationed.

91. Ostensibly the supreme authority rests with the Talé-Lama; but since he is supposed to be exercised wholly in divine contemplation, the civil government is in reality vested in the Naib or nomekhan, who is chosen from among the lamas, and holds his office for life. Under him are four kalons or ministers, not belonging to the sacerdotal tribe, and solely answerable to the Talé-Lama. It appears certain, however, that above the authority of the Talé-Lama and nomekhan the Chinese military governors maintain a general control, and it is asserted that to every public act, including the election of the chief lamas, the assent of the Emperor of China is necessary. The Mussulmans who have immigrated from Cashmere and Little Tibet, and who include the richest merchants of H'Lassa, etc., are subordinate only to their own governor there, who is recognized by the Tibetan and Chinese authorities.

92. Though not so ingenious as the Chinese, the Tibetans are well skilled in many of the arts. In their temples, lamaseries, etc., they have exhibited both excellence of design and execution, and their art appears to advantage in the construction of their bridges, etc. In domestic architecture, however, they exhibit a miserable taste. In regard to manufactures little can be said. These consist chiefly of woolen cloths, velvets, jewelry, etc., and their dyeing is excellent. The Tibetans also excel as lapidaries; otherwise the articles manufactured are those of a religious character, as idols, incense-sticks, rosaries, etc.

93. Tibet is a country of extensive traffic, and has several marts of commercial importance. The principal trade is with China, and is conducted at H'Lassa and Sin-ning, the latter a city of the province of Kan-suh. It is carried on wholly by caravans, and is said to amount to three or four million dollars annually. A large trade is also carried on with Nepaul, Bootan, Cashmere, etc.; but all intercourse with British India is strictly forbidden, and even travelers from the south are precluded from entering the territory.

94. H'Lassa, the capital, is situated on the Mourau, an affluent of the Dzangtsu. Latitude 29° 30′, and longitude 91° 40′. It has several handsome streets, numerous temples, lamaseries, bazaars, etc., and contains the grand temple of Buddha, which is full of idols, treasure, and works of art. There is perhaps no spot on the globe where so much gold has accumulated for superstitious purposes. H'Lassa is also a place of large trade, and its commerce extends to Hindoostan, China, and many parts of central Asia. The other towns are chiefly found in the valley of the Yaru-tzang-bu and on the borders of the lakes. At Chashe-lo-um-bu, over a branch of the Yaru-tzang-bu, there is an iron bridge of thirteen arches, the finest public



CITY OF LEH.

work of the kind in Tibet, and one far superior to any other in the indigenous states. Leh is the capital of Little Tibet, and lies in the valley of the Indus north of the Himalayas. It is a rich city with an active trade in shawl wool and a mint famous for its silver coin.

95. No conqueror from the south ever yet possessed himself of Tibet. Shah Jehangire in 1640 attempted the conquest of Hou-Tsang, but the advance to Léh was disastrous, and his troops retraced their steps. Genghis Khan brought Tibet under his rule; but he afterward re-established the Talé-Lama in his sovereignty. Timur also conquered the country, and yet interfered little with its internal administration. The Tibetans indeed remained, with few intermissions, subject to their own sovereigns to the time of the Chinese Emperor Kang-he, whose supremacy they finally acknowledged in 1727. Keen-lung, about 1790, after successfully repelling an invasion of the Gorkhas, further extended the imperial rule in Tibet, which the Chinese sovereigns have ever since, with much solicitude, preserved; nor is this solicitude without cause, since their wielding the religious influence exercised by the Talé-Lama over the Tartar and Mongolian tribes is of such vital importance to them that without it they could no longer hope to maintain their dominion in central Asia.

[*Weights, Measures, and Moneys.*—Such denominations as are here noticed refer to China Proper. Little is known of those of the other sections of the Empire.

Weights.—The kin or catti of 16 liang or taels = 604.66 grammes or 1.33333 lb. avoirdupois; 100 = 1 tau or pikkl. The liang or tael is further divided into 10 tsien or mace, 100 fun or candareen, and 1,000 li or cash.

Measures.—The chih or covid of 10 tsun = 13⅓ inches; 3 chih = 1 chang. Distance is measured by the li of 180 to the degree, and post-houses are stationed 10 li apart on all the great roads of the Empire. The tau of 10 shing, 100 hau, or 1,000 tchau = 309.57 cubic inches or 1.34 gallon; 10 tau = 1 tsi.

Moneys.—Accounts are reckoned in liang (taels) of 10 tsien (mace), 100 fun (candareen), or 1,000 li or cash. These are bullion weights rather than the names of coins, and represent so much gold and silver. In converting liang of account into dollars—72 = $1, and hence the liang = $1.38888

JAPANESE EMPIRE.

1. Japan is an island-empire in the North Pacific Ocean, off the coast of China, consisting of an archipelago comprising three large mountainous and volcanic islands—Nippon, Kiusiu, and Sikok, and an immense number of smaller islands, of which the most important are Sado, Tsu, Awadsi, Tanega, Iki, Jakuno, and Oo, with the groups Oki, Goto, and Kosiki, forming Japan Proper; and the large island of Yesso, north of Nippon, and separated from it by the Strait of Tsugar or Matsumae, with the south half of the island of Tarakai, Krafto or Sagalin, and the larger and more southern Kurile Islands, forming a dependency called the Principality of Matsumae. The Bonin-sima and Lew-Chew groups also form dependencies.

2. Of these several constituents of the Japanese Empire, the following table gives the extent, etc.:

Principal Islands.	No. of small detached islands.	Area in sq. m.
JAPAN PROPER—		
Nippon	1,269	91,618
Kiusiu or Ximo	1,615	12,437
Sikok	526	7,163
Iki, Sada, Tsu, Awadsi, etc.	201	5,187
DEPENDENCIES—		
Yesso	83	27,620
Kuriles	48	1,882
Krafto or Saghalin	27	14,926
Bonin	89	122
Lew-Chew	92	2,762

—making a total area of 163,717 square miles.

3. The population is variously estimated at from 15,000,000 to 50,000,000; and perhaps the mean of the two estimates would be near to the truth. The state of our information in almost every particular respecting this extensive Empire, however, is very imperfect and unsatisfactory.

4. The largest island, Nippon or Niphon, is upward of 700 miles long, northeast and southwest, with a breadth varying from 50 to 100 miles. Kiusiu, separated from Nippon by a channel, which in one part is narrowed to two miles width, is about 200 miles long, north to south, and 120 miles broad. Sikok, the third and smallest of the three principal islands, is 140 miles long by 60 miles broad; it lies east of Kiusiu, from which it is separated by the Strait of Bungo, which in its narrowest part is not more than 10 miles broad. The straits, to the north and east, which divide Sikok from Nippon, are scarcely broader, while they are so thickly set with small islands that the passage is frequently not more than one mile wide.

5. Yesso is of a triangular form, the sides of which are respectively 300 miles, 260 miles, and 220 miles in length. It is separated from the Nippon, on the southeast, by the Strait of Tsugar, about eight miles broad in the narrowest part. West of Nippon lies the important island of Sado, between Cape Noto and Russian Cape; it is supposed to be about 45 miles long, and 21 miles to 24 miles broad. The narrowest part of the channel, separating it from Nippon, is about 30 miles wide. No foreign navigator has ever yet visited this island.

6. The coasts of the larger islands are extremely irregular, being deeply indented with gulfs, bays, and inlets. The surface also is generally uneven, and in many instances rises into mountains of great elevation. This is especially the case in the island of Nippon, which is traversed throughout its whole length by a regular chain of mountains, the highest peak of which, Fusi—a dormant volcano, covered with perpetual snow—is 12,000 feet high; but the elevation of the range is in general so low as to admit of cultivation up to the watershed of its streams.

7. The Japanese islands form a part of the line of volcanic action which commences in the north with the Aleutian Isles, passes through the Philippines, Sumbawa, and Java to Sumatra, and then, in a northwest direction, to the Bay of Bengal. The volcanic vents, which indicate the direction of the line, are numerous in Yesso, Nippon, and Kiusiu; earthquakes, often causing great devastation, are of frequent occurrence.

8. The prevailing formations in these islands are trachyte and basalt; plastic clay, marl, and feldspar occur in various localities, and there are whole mountains of porcelain earth. The metallic wealth of the Empire is said to be very great, comprising gold, silver, copper, tin, lead, and iron. The island of Sado is particularly mentioned as rich in gold. Both the tin and copper of Japan are considered to be of very superior quality. Coal is found in various parts; sulphur abounds; thermal and mineral springs are of frequent occurrence, and ambergris is met with on some of the shores.

9. Streams are numerous in Japan, but have very short courses, and are, for the most part, rather torrents than rivers. Of the lakes too little is known to warrant any attempt at giving an account of them.

10. The climate, though extremely various—being intensely cold in the north, and about as warm as the south of France in the south—is, on the whole, much milder than its latitude would indicate, owing chiefly to the influence of the surrounding ocean. A remarkable difference of climate exists also between the eastern and western shores; the cold, during the rigorous season, when this difference is most perceptible, being more intense on the latter than the former, owing to the proximity of the Asiatic continent. Rain is very frequent; hurricanes and storms also occur often, and are sometimes very violent.

11. The palm, banana, bamboo, bignonia, and myrtle flourish in the south; while in the north, more especially in Yesso and Sagalin, oaks and pines abound; but sweet oranges, pomegranates, pears, apricots, peaches, many plants known in botany as japonica, and above 500 of the principal ornamental and useful plants, are of foreign origin, having probably been introduced from Corea and China. The camphor and varnish trees are indigenous.

12. The soil is naturally indifferent, but the patient industry of the agriculturists, favored by the genial climate, has covered with vegetation every spot capable of bearing anything. In the south the sugar-cane is cultivated with success, and rice yields two harvests, and constitutes the chief article of food. According to situation, wheat and barley are also grown to a limited extent, and buckwheat, soy, potatoes, melons, pumpkins, and cucumbers in great abundance. Ginger, pepper, cotton, and tobacco are also cultivated in considerable quantities; and there are extensive plantations of the tea-plant.

13. Buffaloes and zebus are common; but, being forbidden by the Japanese religion for food, they are used only for sumpters and agricultural purposes. Horses of various breeds—and, though small, said to be very excellent—are numerous, but are only used for the saddle, and that by the nobility. There are neither asses, mules, elephants, nor camels, and sheep and pigs are few. Small bears, hyenas, deer, hares, and immense numbers of foxes are among the principal wild animals. Dogs are common, and are held sacred; but, though cats exist in thousands, and are esteemed great favorites with the Japanese ladies, yet the country is stated to be overrun with rats and mice. There is a great variety of birds, including falcons; pheasants, ducks, geese, teal, storks, pigeons, ravens, larks, pelicans, cranes, herons, etc. Snakes are not unfrequent, one species of which, the ourabami, attains an enormous size. There are also tortoises and lizards; scorpions, centipedes, and the insect tribes are innumerable. The seas abound in fish, which are taken in great quantities, and form the chief subsistence of the inhabitants.

14. The Japanese belong to the great Mongol-Tartar family, and are distinguished, like all the other branches of this stock, by broad skulls and high cheek-bones; small black eyes, obliquely set; long black hair, and a yellow or sallow oval complexion; some are good-looking, and many are well made, active, and nimble. Siebold divides them into inhabitants of the coasts, inhabitants of the country, and inhabitants of the towns—all of which, he alleges, differ in physical appearance, language, and manner. They are divided, socially, into eight classes—princes, nobles, priests, soldiers, civil officers, merchants, artisans, and laborers—



JAPANESE NOBLES.

which are kept distinct, with all the strictness of caste, each person following invariably the profession of his father.

15. The principal moral characteristics of the Japanese are skill, perseverance, courage, and frankness, with much good humor, natural politeness, and courtesy of manner. The latter qualities are particularly observable among the agricultural population, who are, besides, industrious, temperate, and hospitable.

16. The Japanese dress consists of loose garments of silk or cotton, the men of the higher orders wearing a kind of petticoat-trowsers, and those of the highest rank two swords. They wear no hats, except in rainy weather, and shave the whole front and crown of the head, forming the rest into a tuft on the bald skull. The women, again, wear their hair very long, with numerous costly ornaments of tortoise-shell, but none of any other material. They destroy their natural complexions with paint, color their lips purple, and, when married, blacken their teeth and pluck out their eyebrows. Polygamy is not practiced, although the moral code of the Japanese is not otherwise, by any means, particularly rigid, various laxities being indulged in without scandal. All are slaves to custom, and ridiculous—often oppressive—etiquette.

17. The established or state religion is that of Buddha, although another and older form also exists, called Sinto or Sin-Siu (faith in gods, or way to gods). The priests of this sect are allowed to marry. The language is polysyllabic, and has an alphabet of 47 letters, which are written in four different forms, one of which is used exclusively by men, and another by women.

18. In manufacturing industry and ingenuity the Japanese are at least equal to the Chinese. Their works in copper, iron, and steel bear a high character. Telescopes, thermometers, watches, and clocks of good quality are made at Nagasaki, one of the five imperial cities, on the western coast of the island of Kiusiu. Glass is made, but not very successfully. Silk and cotton cloths are manufactured; and porcelain, said to be superior to that of China. The art of japanning, as it is called with us, or more properly lacquering, is practiced with great success, and specimens are produced far surpassing, in brilliancy and splendor, any that are ever seen elsewhere. Good paper is made from the bark of the mulberry and other trees, and cordage from the fibers; but neither ship-building nor house-building are well understood. The houses are almost universally constructed of timber, plastered on the outside, and consist of two stories, divided into rooms by slight paper partitions.

19. Foreign commerce has been hitherto rigidly limited to the Dutch and Chinese; but the traffic of the former does not at present exceed £70,000 per annum, two vessels only being allowed to remain in the harbor (Nagasaki) at a time. The importations of the Dutch

into Nagasaki consist chiefly of wax, spices, ivory, lead, quicksilver, glass wares, cotton, linen, and woolen goods, for which they take back copper, japanned or lacquered ware, porcelain, and camphor. Silk, tea, and dried fish are among the chief imports of the Chinese, who also take in return the articles above enumerated. Both the coasting and internal trade of the Empire are, however, extensive.

20. The government is a hereditary absolute monarchy, shared between two sovereigns: the one ecclesiastical, called the Mikado or Dairi-Sama, who resides at Mijako; the other military, called the Siogun or Kubo, who resides at Yedo, the capital. The latter is the true sovereign, as regards the civil government; the former being merely a secondary personage, although in possession of the entire superintendence of religion and education, and surrounded by officers who treat him with almost divine honors. The Siogun or principal ruler, who resides at Yedo, is assisted by a council of five hereditary princes, and by a senate, which forms the legislative body, and decides in all civil and criminal cases.

21. The Empire is divided into eight great circles or Doo, and these again into 68 provinces, subdivided into 622 districts, governed by officers appointed and dependent on the Siogun, whose power is thus at once extensive and absolute. The laws are severe, and even sanguinary; torture and death by decapitation or impaling on a cross are ordinary punishments. The public revenues are derived solely from taxes on land and houses, which are assumed to be the property of the state. The army, in time of peace, is rated at 100,000 infantry and 20,000 cavalry. There is no armed navy. Discipline and the art of fortification are little understood.

22. The principal or most important cities and towns of the Empire are—
On *Nippon:* Yedo or Jeddo, Mijako or Kio, Ohosaka, etc.
On *Kiusiu:* Nagasaki, Saga, Kokura, Takanabe, etc.
On *Sikok:* Simoda, Kotsi, Takamatsu, Matsujama, etc.
On *Yesso:* Hakodade, Matsumae, Alkesi, etc.
On *Great Lew-Chew:* Shove, Napa, etc.

23. Yedo or Jeddo, the political capital and residence of the Siogun or military emperor, is situated on the gulf of the same name, on the southeast coast, and in latitude 35° 45′ north, and longitude 139° 38′ east. The gulf is 70 miles long and 20 miles wide at its entrance, and at its northern extremity, the site of the city, receives several rivers, which,



VIEW OF THE BAY OF YEDO.

with numerous canals, afford ample accommodation for vessels of moderate tonnage. The general structure of the place is forbidding, the dwellings being chiefly of wood and plaster, but it contains many residences of the nobles, ornamented with sculpture and painting, several large temples and other public edifices, and numerous conventual establishments. The imperial palace, in the center of the city, is strongly fortified; it consists of five castles and some large gardens behind it, and with its inclosures covers a circuit of eight miles. The circuit of the city itself is said to be 30 miles, and its population is stated at from 700,000 to 1,200,000. The suburbs are also very extensive.

24. Mijako, the ecclesiastical capital, is situated in latitude 35° 6′ north, and longitude 135° 38′ east, 250 miles west-southwest from Yedo. It stands in a plain surrounded with mountains, the slopes of which are laid out with gardens and dotted over with temples and convents. The city is about four miles long and three miles wide, and, besides the numerous court of the Dairi, contains more than 500,000 inhabitants. The Dairi resides on the northern side of the city in a particular ward consisting of twelve or thirteen streets, and separated by walls and ditches. On the western side is a strong castle built of freestone, where the Siogun resides when visiting the Dairi. The streets are narrow but regular, and the houses generally of wood, lime, and clay. Mijako is the principal manufacturing city of the Empire, and at the same time the center of science and literature. The city is united, by a broad canal, to the river Yedogawa, which flows not far from its walls.

25. Ohosaka or Osaka, the most commercial place in the Empire, is situated in the northern angle of the Gulf of Ohosaka, and 20 miles south of Mijako, of which it is the natural port. The river Yedogawa, on which it stands, is deep and navigable in its principal branch, and is usually crowded with hundreds of barges, and these are brought through the streets by numerous canals branching off from the river. The banks of the river and canal are lined with rough-hewn freestone, and formed into steps so as to resemble one continued stairway. Numerous bridges built of cedar wood cross these, and some are not only immense structures, but highly ornamented. At the northern extremity of the city is a large castle, and the merchants, artists, and manufacturers, who are many of them very wealthy, have handsome residences. The streets, however, are narrow but regular, with sidewalks, and very clean. The ordinary dwellings are two-storied, and built chiefly of wood and clay. The population is very great, and according to the exaggerated accounts of the Japanese, an army of 80,000 men may be raised from among its inhabitants. The natives call Ohosaka the universal theater of pleasure and diversion, and plays are daily exhibited in public and private houses. In its neighborhood the best "saki," a kind of strong beer obtained from rice, is made and exported in large quantities into the other provinces.

26. Simoda, near Cape Idza, is one of the ports recently opened to commerce. It is situated in latitude 33° 10′ north, and longitude 139° 56′ east, and is a town of about 6,000 inhabitants. Kotsi, on a beautiful bay about 60 miles northeast of Simoda; Toksima on the northeast; Takamatsu on the north, and Matsujama on the east side, are capitals of the four provinces into which the island of Sikok is divided. These are all sea-ports, and maintain extensive coasting business.

27. Nagasaki lies on a peninsula formed by the deep bay of Ohomura in latitude 32° 45′ north, and longitude 129° 51′ east. Its harbor is spacious and deep, extending in length about four miles, with an average width of more than a mile. At its entrance is the small island of Papenberg, where the water is 22 fathoms deep, but it so shallows inward that opposite the town it has only a depth of four fathoms. The town is built on its eastern shores, in a narrow valley which runs eastward, and on the inclosing slopes. It is well built and clean. The houses generally are only one story high, timber framed, the interstices being filled with clay, and the whole coated with cement. Each house is furnished with verandahs, and oiled silk is used for glass. There are, however, some good buildings in the town, as the palaces of the two governors, and those of some of the princes and nobles of the Empire; but especially the temples (above 60 in number) within and without the town. There are some manufactures of silver and gold, and its commerce extends over wide districts. The population is variously estimated at from 50,000 to 60,000. It is one of the five imperial towns of the Empire.

28. Hakodade and Matsumae are two flourishing towns on or near the Strait of Tsugar or Matsumae. The first is one of the ports recently opened to commerce, and the last the capital and residence of the governor. Neither are very large towns.

29. Napa or Napa-Keang is the principal sea-port town of the Lew-Chew Islands, and is situated in latitude 26° 13′ north, and longitude 127° 36′ east. The harbor is secure, and the port is now open to commerce. Shove is the capital. The Lew-Chew group consists of one large (65 by 15 miles) and about 30 smaller islands, in latitude 26½°, and longitude 128°, and as regards internal administration these islands are essentially independent.

30. Lloyd's Harbor is a sea-port of the Bonin, a small group of islands in the Pacific Ocean, and belonging to the archipelago of Magelhaens. These islands are inhabited by a colony of Japanese. The harbor is situate in latitude 27° north, and longitude 141° 22′ east.

31. Marco Polo is the first European traveler who speaks of Japan, called by him Cipango or Zipangou. In 1542 it was reached by Mendez Pinto, and shortly afterward the Portuguese obtained permission to settle at Nagasaki, and established a highly lucrative trade.

32. In 1549 the Jesuit missionary, Francis Xavier, arrived, and by his means, and that of his followers, many of the natives were converted to Christianity. But the government becoming jealous of the Portuguese, and irritated at the interference of the missionaries with the religious profession of the people, in 1585 expelled the traders, and compelled the native converts to return to their former faith.

33. In 1600 the Dutch, with difficulty, prevailed upon the Japanese to allow them to trade, on condition of not interfering with the national religion; and they long continued the only nation having direct intercourse with them. The trade, however, was carried on under great disadvantages, and is subject to numerous vexatious restrictions.

34. An Englishman, named William Adams, a master in the navy, was wrecked on the coast of Japan during the reign of Queen Elizabeth, and kept a prisoner for life. He gained favor with the emperor, and succeeded in opening commercial relations between England and Japan, which for several years flourished vigorously; but during the reign of James I. the English flag was withdrawn, and the English shared in the general expulsion of foreigners, above adverted to, since which time, until 1854, the ports of Japan have been closed to all but the Dutch and Chinese.

35. On the 31st of March, of the latter year, Commodore Perry, on the part of the United States, effected a treaty with the Japanese, in accordance with which the ports of Simoda in Nippon, and Hakodade in Yesso, are open to American commerce; and on the 14th October following a similar treaty was effected by the British. A third port, not yet named, is to be opened a year after the ratification of the first treaty. Napa, on Great Lew-Chew island, and Lloyd's Harbor, on Bonin island, are also opened to American and British commerce.

[*Weights, Measures, and Moneys.*—The denominations are much allied to those of China, and in so far as weights are concerned are the same.

Measures.—The "inc" or tattamy = 1,904 millimetres or 2.08 yards. The "ri" (road measure): 30 = 1 degree. The sjoo of 10 goo or 100 sasi or sjak = 1.7386 litres, 0.45932 gallon or 0.04934 bushel; 10 sjoo = 1 to, and 35 sjoo = 1 ippjoo, tawara, or strohsack of rice.

Moneys.—The Japanese reckon money by weight as in China. The principal coins are—in gold, the itzib, worth about $2, the kobang $9, and the oban $27; and—in silver, the nandoguin, worth about $0.40. The coins of Japan are either oval or oblong. Accounts are kept in monmes (taels) of 10 pun, 100 kin, or 1,000 moo; 72 kin = 1 Spanish dollar, and hence the monme = $1.38888.]

DESCRIPTIVE GEOGRAPHY OF AFRICA.



1. Africa, the great southern peninsula of the Eastern Continent, and of the grand divisions of the globe the third in extent, assimilates in form an imperfect triangle with its apex to the south. It lies between latitudes 37° 20′ north and 34° 40′ south, and between longitudes 17° 20′ west and 51° 30′ east of Greenwich; and is bounded on the north by the Mediterranean Sea (which divides it from Europe), on the east by the Isthmus of Suez, the Red Sea, and the Indian Ocean (by which it is separated from Asia), on the south by the Southern Ocean, and on the west by the Atlantic Ocean, which extends between Africa and South America.

2. Its extreme length, from north to south, or from Cape Blanco, on the Mediterranean, to Cape Agulhas, in south Africa, is about 5,000 miles; and its greatest breadth, from west to east, or from Cape Verde, on the Atlantic, to Cape Guardafui, on the Indian Ocean, is about 4,800 miles. On account of the irregularity of its form, however, its area is much less than such extremes would indicate, and is estimated at only 11,750,000 square miles.

3. Except where the narrow neck of land called the Isthmus of Suez connects it with Arabia, Africa is wholly surrounded by water. Its nearest approaches to the neighboring continents occur at the Gulf of Suez, at the Strait of Bab-el-mandeb, and at the Strait of Gibraltar—a few miles only separating it from the opposite shores at these points. Its coast-line, which is about 15,000 miles in length, is nowhere very deeply indented by bays or gulfs, if we except the Gulf of Guinea, on the west. The other principal indentations are the Gulf of Sidra on the north; the bights of Benin and Biafra on the west; and Delagoa and Sofala bays on the east. Its more remarkable projections are capes Blanco and Spartel on the north; Cape Verde on the northwest; Cape Agulhas on the south; and Cape Guardafui on the east.

4. There are but few islands of considerable extent so close to its shores as to warrant their being considered as specially pertaining to it. Among those few are the Bissagos, off the mouth of the Rio Grande, in Senegambia; Fernando Po, in the Bight of Biafra; Prince's Island and the islands of St. Thomas and Annabon, all in the Gulf of Guinea. Off the east coast are the Bazaruta and Queriniba islands, and the islands of Zanzibar and Pemba. At greater distances are the Canary and Cape de Verde islands off the northwest coast; and Madagascar, the Comoro Islands, and Socotra off the east coast—Madagascar being separated from the continent by the Mozambique Channel, which has a width at its narrowest part of about 250 miles.

5. Africa is very generally composed of a vast series of table-lands, rising in successive terraces from the coasts to the interior. This is known to be the case in south Africa, in Abyssinia, where they present the grandest features, and at various other points; and where not positively ascertained, has been presumed from the fall in the beds of rivers. Nothing, however, is known of the surface of these table-lands in the interior, which yet remains unexplored.

6. The most extensive range of African mountains with which we are acquainted is that generally known by the name of the Mountains of the Moon, which commences at Kissi-Kissi, about 200 miles southeast of Sierra Leone (latitude 9° north, longitude 9° 20′ west), runs in a southeastern direction, nearly parallel with the coast, and at a distance from it varying from 80 to about 150 miles to longitude 26° east, when it suddenly takes a northeastern course, crosses the entire continent, and terminates at Cape Guardafui, on the east coast, a distance of upward of 4,000 miles. About longitude 12° east an offshoot of this vast chain, called the Cameroon Mountains, apparently of volcanic formation, stretches down, in a southwestern direction, to the Bight of Biafra, and near the sea attains an elevation of 13,000 feet. North of the Kong Mountains are various lofty mountain ranges running in a north direction. Among these are the mountains of Dombori and Batako. Between the meridians of 7° and 11° west, and the parallels of 11° and 14° north, another chain of rocky heights, rising to an elevation of from 2,000 to 3,000 feet, and cleft by tremendous ravines, skirts the Joliba or Niger.

7. The next more remarkable mountains of Africa are those composing the Mount Atlas range, beginning at Cape Geer or Ghir, 10° west longitude, and extending east as far as 10° east longitude, where it approaches 32° north latitude. The distance from one side to the other of this range has been estimated at from 30 to 40 miles; and the height of the highest summit, Miltsin, 27 miles southeast of the town of Morocco, at 11,400 feet above the level of the sea. The higher regions of these mountains are seldom entirely free from snow. A mountain of great height has lately been discovered in eastern Africa, Kilimandjaro or Kilima dja are, "Mountain of Greatness," in latitude 3° 40′ south, and longitude 36° east; and it being covered with perpetual snow would indicate a height of at least 20,000 feet. The mountain is described as having two summits rising to the limit of snow, of which the eastern is the lower. The western summit is the proper perpetual snow mountain. The two summits are 10 or 12 miles apart. In the province of Shoa the mountains attain a considerable elevation, that portion of it called Effat being entirely surrounded by lofty and craggy hills.

8. The great deserts of Africa are the Sahara and those of Nubia and Libya; the two latter, however, being merely continuations of the former, which is the largest desert in the world. The Sahara thus extends from the Atlantic Ocean nearly to the Red Sea, a distance of upward of 3,500 miles, having an average breadth until it reaches Nubia, where it is intersected by the rich valley of the Nile, of from 600 to 900 miles. Its entire area has been estimated at 2,000,000 square miles, a space equal to twice the superficies of the Mediterranean.



STORM IN THE DESERT.

9. The principal rivers in southwestern Africa, beginning at its north limit and proceeding south, are the Senegal, Gambia, Casamanza, Cacheo, the Jeba or Geba, the Rio Grande, the Nunez, the Sierra Leone River, the Adiri or Volta, the Quorra or Joliba (ancient Niger), the Zaire or Congo, the Coanza, and the Gariep or Orange River. In eastern Africa there are few large rivers; the most considerable are the Zambezi or Quillimane, and the Juba or Fumbo. The former rises in the table-lands in the interior, and enters the Mozambique

Channel by several mouths, in latitude 18° south, longitude 37° 30′ east. It is said to have a course of 900 miles, and to be navigable during the rains for 200 or 300 miles from the sea. The Juba, which is said to rise in Abyssinia, falls into the Indian Ocean at the town of Juba, on the coast of Zanzibar, in latitude 0°, longitude 43° 30′ east. It is said to be navigable for boats to a great distance from the sea. The other principal rivers of eastern and northeastern Africa are the Hawash, in Abyssinia, the Atabara, the two principal branches of the Nile—the Bahr-el-Abiad or White Nile and the Bahr-el-Azrek or Blue Nile, and the Nile itself. With the exception of the latter, there are no rivers of any magnitude, so far as known, in northern or northwestern Africa.

10. The known lakes of Africa are few in number. The largest of which there is any certain account is Lake Tchad. It is situated in the territory of Bornou, and nearly in the center of the continent, approaching the fifteenth degree of north latitude, and under the fifteenth degree of east longitude. It is about 220 miles long, and at the widest part about 140 miles broad. The other known lakes of Africa are the Debo, in Soudan, in the same latitude with the Tchad, and, under the fifth degree of west longitude, traversed by the Niger; the Lake of Dembea, in Abyssinia, traversed by the Bahr-el-Azrek or east branch of the Nile; and Njassi, in southeastern Africa, about which little is known. Neither of these, however, are of nearly such extent as the Tchad. Lakes are also met with within the ranges of Mount Atlas, the largest of which is called Lowdejah. To the lakes above enumerated has now to be added a large one, recently discovered (July, 1849) in southern Africa by Livingstone, who places its northeastern extremity, though doubtingly, in latitude 20° 20′ south, longitude 24° east. It is reported to be about 70 miles in length, and is at once the source and recipient of several fine streams. The largest of the former is the Zouga, which flows from the lake first in a northeastern and latterly in a south-southeastern direction. It rises and falls periodically, but the cause of this phenomenon is unknown.

11. Gold, gold-dust, and iron are among the best known of the mineral riches of Africa, and are the most generally diffused throughout that continent. In the country of Bambouk, south of the Senegal, where most of the gold that finds its way to the coast is obtained, the mines are open to all, and are worked by the natives of the adjoining villages. The richest gold mine known in Africa is that of Natakoo—a small, round, isolated hill, situated on a plain about 300 feet high, and 3,000 paces in circumference at the base. This eminence is of alluvial formation, being composed of an unctuous argillaceous earth. The gold here is found in the various forms of lumps, grains, and spangles; every cubic foot being loaded, it is said, with the precious metal. In searching for gold the natives have perforated the hill in all directions with pits or holes, six feet in diameter and 40 feet deep. The auriferous earth is first met with about four feet below the surface, becoming more abundant with increase of depth. At a depth of about 20 feet, lumps of pure gold weighing from 2 to 10 grains are found.

12. Forty miles north of Natakoo are the gold mines of Semayla. The source whence the gold is obtained here is of a wholly different nature from that of the former. The hill, instead of being soft argillaceous earth, is composed of rock and sandstone, and has to be pounded in a mortar to get at the gold. Gold is found also in the beds of the rivers in this neighborhood.

13. The next richest gold mine in this part of Africa is that of Nambia, situated at the back of the western chain of the Tabaoura Mountains. It is found in a hill similar to that of Natakoo, but is of a paler color; and is, on this account, preferred, being more ductile and malleable. In a valley east of the Rio d'Oro is the mine of Kombadyria—an isolated mount of argillaceous earth, as in the former two cases. Here, too, the beds of the adjacent streams contain gold, which, in this part of western Africa, is found distributed over a surface of 1,200 square miles. Large quantities of gold dust are also found on the banks of the Barra, on the west coast.

14. Iron is found in Morocco, Abyssinia, Algeria, and in various mountainous districts of central and southern Africa. Salt is also found in great abundance throughout the greater part of Africa, both as a residuum and as a fossil; the former on the banks of salt lakes, the latter by mining. Though widely diffused, however, there are many large and extensive districts without it; and there it is considered a luxury, and brings high prices. Manganese is also common. An important discovery has recently been made of extensive deposits of nitrates of potash and soda in the neighborhood of Angra Pequena, on the west coast of southern Africa. Copper ore, of the richest description, is to be found at a short distance beyond the Orange River; and lead is known to exist near the mouth of the Van Staaden's River, in Cape Colony.

15. Although the greater part of this continent lies within the torrid zone, and might be expected to possess a certain uniformity of climate corresponding to such a position, this is not the case. Extensive arid plains, swamps, marshes, and the exhalations of a rank vegetation give it a fatal variety. The southern and northern extremities being beyond the tropics, and of course within the temperate zones, are sufficiently healthy, and so also is the eastern coast generally. It is on the western coast that the climate of Africa is most destructive to Europeans, and where the heat of the sun is most intense; Senegambia, between latitudes 10° and 11° north, being, perhaps, the hottest place on the globe. The whole of the Gold Coast is also extremely unhealthy. In the midst of the most beautiful scenery, where trees, and rocks, and still waters, and a delightful verdure give assurance of an earthly paradise, the angel of death lurks unseen, and strikes down his victims without warning, and while yet in the pride of their strength. The seasons of Africa consist but of two—the dry and rainy; the latter including May, June, July, August, September, and October, the former the remaining months. The wet season, gloomy and cheerless, is always ushered in and terminated by tornadoes. During its continuance the mountains are wrapt in perpetual fogs, and disease, though not peculiar to any season, becomes more general and more fatal. The tornadoes, however, which are always accompanied by tremendous storms of thunder and lightning, have a beneficial effect on the atmosphere, rendering it cool, clear, and invigorating. Along the Gold Coast land and sea breezes prevail; the former generally from north-northwest, the latter southwest and west-southwest. The land breeze continues from 9 A. M. till 7 P. M.; but in the rainy season is irregular. Though many of the countries of Africa are deluged by rains, there are vast tracts in which hardly any ever falls. These are the deserts; and this is supposed to be one of the causes of the high temperature of this continent, which is much hotter than either Asia or America.

16. The greater portion of Africa lying between the tropics, its vegetation is of course modified by that circumstance. With exception of its southern extremity, it may be said to be wholly a palm region. The north of Africa, along the Mediterranean, presents a vegetation similar to that of many parts of the south of Europe, but much more luxuriant. Wheat and maize are here cultivated; the olive, the orange, the castor-oil plant, the fig-tree, and the dwarf and the date palms are plentiful, and the lote bush is so abundant that its fruit—which is still partially eaten—constituted formerly an important article of food to some ancient tribes, from which they were named by the Greeks *lotophagi*—lotus eaters. South of the Atlas Mountains lies a tract called the Land of Dates, from the great profusion in which the date palm is diffused over its surface.

17. Rice, maize, plantains, yams, manioc, pulse, and earth nuts are cultivated along the whole western tropical coast. In Senegambia, Adanson first discovered the enormous baobab tree—a plant also common in Nubia, and found as far south as Lake Ngami—whose stem is sometimes 30 feet in diameter, though not more than 10 or 15 feet high, but having a very large, bushy head. In the same region flourishes the acacia, from which gum Senegal is obtained. Along the western coast, likewise, but in greater abundance on the Guinea coast, are found the elæis guineensis, from which palm oil and wine are obtained; the cabbage palm, the wax palm, the shea butter-tree, all yielding products important to man. To these may be added the African oak, and that plant characteristic of river mouths, the mangrove. Of fruits, the best are the banana, papaw, custard apple, lemon, orange, and tamarind. At the Cape of Good Hope wheat and other cereals are cultivated; but the most characteristic vegetation of this district are the heaths, which grow in wonderful profusion, in great variety, and of surpassing beauty.

18. The eastern coast may, generally speaking, be said to be characterized by the same vegetation as the western. Here, however, the cultivation of rice is more general, that of maize less. Tamarinds, figs, and plantains grow on this coast; and the cotton plant is found in great abundance. The northeastern part of Africa is rich in frankincense, myrrh, cinnamon, and numerous other spices. The highlands of Ethiopia are the native place of the coffee plant. In many tropical localities, but more especially along the eastern coast, this plant forms thick woods.

19. Abyssinia, though within the tropics, can scarcely be said to possess a tropical vegetation. The country generally is so much raised above the level of the sea, that its characteristic plants are more those of the temperate than of the torrid zone; part of it, however, is included in the spice region. Nubia, though farther from the equator than Abyssinia, as it lies on a lower level, possesses a vegetation much more tropical. The baobab, elæis guineensis or palm-oil tree, and bombax pentandrum or Indian cotton are among its prominent plants. Egypt has long been celebrated for its wheat, which is there extensively grown; rice, beans, peas, sesamum, and cotton are also cultivated. Senna and other cassias are found in Upper Egypt, and form a considerable article of commerce. The dwarf and the date palm are plentiful; and the doum palm is not uncommon.



EGYPTIAN WHEAT.

20. Of the 300 different species of mammals that inhabit Africa, 242 are peculiar to the country. The quadrupeds of burden are the camel (Arabian), and the horses and asses of Barbary. Of horned cattle there are many different varieties; the oxen of Abyssinia and Bornou, both having horns of immense size—the former four feet in length, and the latter measuring upward of two feet in circumference at the base, but so light that they hardly weigh two pounds each; the broad-tailed sheep of Barbary, the Cape of Good Hope, and other parts of Africa; and the long-legged, small-tailed sheep of Egypt, Sennaar, and Nubia. Of goats there is a great abundance and variety, being in many places more numerous than sheep. The domestic cat is rare in Africa, but dogs are numerous. In the large towns of Egypt and Barbary troops of these animals are maintained by the public to act as scavengers, the duties of which they perform with entire efficiency. Domestic poultry are abundant in every part of Africa, though not indigenous to the country.

21. Among the wild animals is that extraordinary species of the ape called the chimpanzee or *simia troglodytes* of naturalists. It attains the ordinary stature of man, and inhabits the countries from Sierra Leone to the southern confines of Angola. The baboons, among the inferior tribes of the quadrumana, inhabit the mountains and rocky heights. They sometimes attain a great size, and, from their strength and mischievous disposition, are held in much dread by the natives. The monkeys, properly so called, inhabit the woods and swarm over the whole continent. The carnivorous and ferocious animals of Africa are numerous and formidable. At the head of these stands the lion, of which there are three varieties—the Barbary, Senegal, and Cape lions. Next to the lion rank the leopard and panther, there being no tigers in Africa. The hyena is found in great numbers in southern Africa, especially in the neighborhood of the Cape of Good Hope, and, it has been asserted, as high as Barbary. The civet is found in most parts of Africa, and is kept in great numbers by the natives, on account of the perfume. Ichneumons are also common. Of the rodent mammals, our knowledge is very limited. So far as known, there are three varieties of hares; common rabbits;

AFRICA

(PHYSICAL.)

The names of the chief products of each country are inserted thus Gums, Indigo. *The localities where minerals are found are marked thus* Gold, Iron, Copper.

EXPLANATION.

Mountain Chains are represented thus ——o—— *(the broader the line the greater the elevation) The highest points are marked with circles thus* —●— *and the elevations given in feet. Volcanoes thus* —▲— *Table lands and Plateaus colored Brown. Plains, Valleys and Low lands are Colored Green.*

TEMPERATURE & CURRENTS.

The mean temperature of January and July is shown by Isothermal lines crossing the map thus January 59° *July* 90°5 *The direction of Ocean Currents is shown by Arrows, and the figures attached show the velocity of water for each period of 24 hours in nautical miles.*

PROFILE ON LAT. 20° S. FROM MADAGASCAR TO MAURITIUS

PROFILE OF AFRICA ON LAT. 10° S. FROM THE ATLANTIC TO THE INDIAN OCEAN.

PROFILE OF AFRICA BETWEEN LATITUDE 28° & 39° N. FROM THE CANARY ISLANDS TO ARABIA.

PROFILE OF AFRICA, NEAR LATITUDE 15° N. FROM THE CAPE VERDE IS. TO THE INDIAN OCEAN.

Entered according to Act of Congress, in the Year 1858 by J.H. Colton & Co. in the Clerks Office of the District Court of the United States, for the Southern District of New York.

AFRICA

1/28.990.200 of Nature.

SCALE OF STATUTE MILES. 69,16 to 1°

0 50 100 300 500 700

400 Geographical or 461.06, Statute Miles. to one inch.

LONGITUDE 0 FROM GREENWICH

WEST 40 30 20 10 EAST 10 20 30 40 50 60 70

LONGITUDE EAST 97 FROM WASHINGTON. 107 117 127 137 147

37 47 57 67 77 87

50 40 30 20 10 0 10 20 30 40

TROPIC OF CANCER

TROPIC OF CAPRICORN

EQUATOR

ATLANTIC OCEAN

MEDITERRANEAN SEA

INDIAN OCEAN

ARABIAN SEA

RED SEA

PERSIAN GULF

BLACK SEA

SEA OF AZOF

SEA OF MARMORA

GULF OF GUINEA

SAHARA OR GREAT DESERT

UNEXPLORED REGION

EUROPE

ASIA

GERMANY

AUSTRIA

RUSSIA

FRANCE

SPAIN

PORTUGAL

ITALY

TURKEY

ARABIA

PERSIA

MOROCCO

ALGERIA

TUNIS

TRIPOLI

EGYPT

NUBIA

ABYSSINIA

SOUDAN

SENEGAMBIA

GUINEA

LIBERIA

SIERRA LEONE

DAR FOOR

KORDOFAN

SENNAR

ABYSSINIA

SHOA

ZANGUEBAR

MOZAMBIQUE

ZAMBIQUE

MADAGASCAR

CAPE COLONY

NATAL

ORANGE RIVER FREE STATE

TRANSVAAL REPUBLIC

NAMAQUAS

HOTTENTOTS

BUSHMEN

KAFFRARIA

ANGOLA

BENGUELA

LOANGO

CONGO

LONDA

CAZEMBE

MONOMOTAPA

MONOMOTAPA EMPIRE

MATABELE COUNTRY

DAMARA

OVAMPO

BARMEN

NUBIAN DESERT

LIBYAN DESERT

DESERT OF BARCA

ARABIAN DESERT

GREAT ARABIAN DESERT

COUNTRY OF THE TUARICKS

COUNTRY OF THE TIBBUS

COUNTRY OF THE GALLAS

TRIBES OF THE SAMAULI

TRIBES OF THE MOOLLEBEL KUMRI

TRIBES OF THE GALLAS

MOUNTAINS OF KONG

ATLAS MTS.

ABYSSINIAN MTS.

MOUCHINGUE MTS.

FURA MTS.

LUPATA MTS.

SOFALA T. & B.

INHAMBANE

TRANSKEI TERRITORY

GR. SESTERS TERRITORY

SINOU COUNTY

MESURADO COUNTY

MANDINGOES

FOULAHS OR FELLATAHS

ASHANTI

KAFFRARIA

CASSA COUNTRY

KIYAMA COUNTRY

MANNA COUNTRY

ATLANTIC OCEAN

INDIAN OCEAN

MEDITERRANEAN SEA

RED SEA

PERSIAN GULF

BLACK SEA

SEA OF AZOF

SEA OF MARMORA

GULF OF GUINEA

Cherbourg Havre C.St Matthew Brest Orleans PARIS BERN VIENNA Lemberg Poltava Sarepta R. Dnieper R. Volga

BAY OF BISCAY Lyons TURIN Gratz Pesth Klausenburg Venice Essek Odessa CRIMEA Stavropol

Bordeaux Genoa FLORENCE Belgrade R. Danube Varna Cattaro Bukarest

C.Finisterre Oviedo Marseilles CORSICA ROME Adrianople CONSTANTINOPLE Simope Tiflis

Oporto Leon Barcelona MADRID NAPLES Salonica Trebizond

Corvo AZORE ISLANDS Portuguese Flores Fayal Terceira Pico ANGRA Santo Miguel Ste Marie LISBON Valencia Balearic Is. SARDINIA Corfu Sivas Diyarbekir L. Van

Cordova Palermo Smyrna

C.St Vincent Gibraltar ALGIERS Constantine TUNIS SICILY IONIAN ISLANDS Bire

STRAIT OF GIBRALTAR Ceuta Marabout Tipsah C.Matapan Rhodes Skanderoon R. Tigris

C.Spartel Tangier Tlemcen Souasi Candia Cyprus Damascus Bagdad Ispahan Yezd

Sallee Azamor Fez Gulf of Gabes Euphrates R.

MADEIRA Is. Portuguese Funchal Porto Santo Biskara Tuggart TRIPOLI Cyrene Rasal Halal Jerusalem

Mogador MOROCCO Tafilet Ben Ghazi Alexandria El Arish Algwaf Shuster

Agadir Miltsin ATLAS MTS. SYRTIS Sidra Gulf BELEL EL GEREED Country of Dates DESERT OF BARCA Kirman

CANARY Is. Spanish Ghadamis Akaba Shiraz

Palma St CRUZ Teneriffe Lanzarote Fuerteventura Canaria Ferro Gomera THE HAMADA Sukna Oasis of Augila Oasis of Siwah CAIRO Mineh Sioul Lesser Oasis Mt Sinai El Hail

C.Bojador Oasis of Twat Agably FEZZAN MOORZOOK AKAKUS MTS. Ghat Lybian Desert El Khargeh Great Oasis Girgeh Thebes Ruins El Katif

Derr Medina

Essuane Ras el Aff El Debrayeh

Cape Blanco Arguin Toudemi Salt Mine Hoden Oasis COUNTRY OF THE TUARICKS Rocky Hills Bilma COUNTRY OF THE TIBBUS NUBIAN DESERT MECCA

CAPE VERDE Is. Portuguese S.Antonio Sal Santo Nicolao Bonavista Santiago Maio Fogo PORT PRAYA Cape Verde

Timbuctoo AIR OR Tintillust ASBEN AGADEZ Tisheet Mt. Dogem Gao Saraijamo NEW DONGOLA Old Dongola El Mekheir Suakin Lith Farsan Is.

Senegal FOLEES Benown Bakel Warneo Isaca Dore Say Sokoto Katshna Kobbe Shendi Massouah Sana Ras Fartak

R. Senegal Gam Pisania Saradon Sego Jenne Bathurst SENEGAMBIA Bissao Adafudia Gando Kano Wara Kenga Masena DAR FOOR Khartum Mocha

Bissagos Is. MANDINGOES Timbo Kankan Assafooda FOULAHS OR FELLATAHS Boussa Yakoba Uje Takala El Obied KORDOFAN SENNAR Aden Socotra I.

Kamina Mt Loma MOUNTAINS OF KONG Egga Tajurrah ABYSSINIA Berbera

Mt Kakulima Free T. Kong R. Quorra R. CHADDA OR BENUE Yola Mt Atlantika Ankobar SHOA Harrar Cape Guardafui

SIERRA LEONE MANDINGOES Abomey Iddah FUMBINA Saka Ras Hafoon

Sherbro I. LIBERIA Jenna Benin Slave Coast Komassi ASHANTI Ivory Coast Gold Coast Wari OR ADAMAOA Cameroons Mts. Bonga L. Abba

Cape Mount MONROVIA Grand Bookra Harper C.Formosa Fernando Po Princes I. Qua Qua R. UNEXPLORED REGION

Cape Palmas C.Three Points C.Coast Castle Quittah Accra Benin R. BIAFRA R. Gaboon EQUATOR Magadoxo

St Thomas Cape Lopez Mt Kenia L. Baringo Jubb

Mayumba R. Congo or Zaire Quango R. Burgenei TRAMBANI ILOIGOB Kisongo Kilimandjaro Mombas Pemba Seychelle Is.

Loango R. Congo Uniji Kavoga Bagamoyo ZANZIBAR Amirante Is.

CONGO Banza Msasamaji

St Paul de Loando Lucenda Monfia I. Providence I.

ANGOLA Cassange Cabango Ouilon Aldabra I.

R. Coanza Sanza Njambi Moira Alschinto WANIASI Gnombe Kisanga C. Delgado

Symbas Bihe L. Dilolo Comoro Is. C. Amber

St Philip de Benguela Schinte Mjengap Mt Njeza Pemba I. Nosibe Is. Varqu.

PLAINS OF LOBALE MUCHINGUE MTS. BLACK MTS. MOZAMBIQUE

Caconda Nariele Zumbo Bonga Antongil I.

Cape Negro Makololo Monze Tete Angoxa Is. C.St Andrew St Mary I. Tromelin I.

MONOMOTAPA Seshake Senna Rabidrabou

Nourse R. OVAMPO Victoria Falls Quillimane TANANARIVO

Cape Frio Maketo R. Zouges SOFALA Sofala T. & B. Ankaratra Mts. Andevorande Port Louis

Ambodichar St Denis MAURITIUS

Barmen DESERT Limpopo R. Malatanue BOURBON or REUNION

Walvisch B. Oosop NAMAQUAS Kalahari Desert Inhambane Mouzangabe

Kolobeng TRANSVAAL REPUBLIC Corrientes C. St Vincent

Old Latakoo Pongolo R. Andrambe

Dias Point HOTTENTOTS Krumen R. POTCHEFSTROM Port Dauphin

Garies Orange R. Vaal R. Cape Vidal

BUSHMEN ORANGE RIVER FREE STATE Urban C. St Mary

Clan William BLOOMFONTEIN CAPE Colesburg Beaufort NIEUWELDT MTS. Cape Town

St Helena R. COLONY Somerset Graham's T. PETER MARITZBERG Cape of Good Hope

KAFFRARIA Cradock Fredericksburg Table Mt. Simon's T. Amatolas Mts. Algoa B. Port Elizabeth Table B. Agulhas

Entered according to Act of Congress in the Year 1856, by J.H. Colton & Co. in the Clerks Office of the District Court of the United States, for the Southern District of New York.

LIBERIA

1/7.241.550 of Nature.

SCALE OF MILES. 0 20 40 80.

100 Geographical or 115.26, Statute M. to one inch.

64 65 66 67 68 69

Port Lago Sierra Leone R. Rokelle FREE TOWN SIERRA LEONE R. Karamanka Tawry B. Jasso CASSA COUNTRY R. Sherbro SHERBORO KIYAMA COUNTRY Galinas R. MANNA COUNTRY Mt Mount R. Cape Mount Peak 1068 MESURADO COUNTY St Paul's R. Millsburg Louisiana Caldwell C. Mesurado MONROVIA Marshall St John R. Edina Bexley BASSA COUNTY Cestos Factory SINOU COUNTY GR. SESTERS TERRITORY Grand Bootron R. Nitho Baddoo Grand Sesters T.

ATLANTIC OCEAN

eight or ten distinct species of jerboas; squirrels, rats, and mice. Of the edentatous mammals, there are two species found in Africa, the aardvark or ground hog (*orycteropus capensis*) and the long-tailed pangolin (*manis tetradactyla*). In the first rank of the pachydermata or wild, tusked quadrupeds of Africa, stands the elephant, which, it has been said, though the point seems by no means established, attains a greater size here than in Asia. Elephants are dispersed all over Africa south of the Sahara. They live in herds of from 100 to 300, and are so numerous that their tusks (ivory) form a principal, and one of the most valuable exports of Africa. The rhinoceros is found in the middle and southern parts of Africa, frequenting the same haunts as the elephant. The African rhinoceros is distinguished from the Asiatic by having no front or incisor teeth. Hippopotami are found in great number in the large rivers and lakes of Africa; among the former, particularly the Senegal, Gambia, Niger, and Zaire or Congo. The engallo or wild boar is also found in Africa, but it differs from that of Europe; its molar teeth resembling in form and structure those of the elephant. The zebra and quagga are found all over southern and central Africa. The symmetry and brilliant coloring of these animals added to the extraordinary regularity of the stripes with which they are adorned, rank them among the most beautiful of quadrupeds. The quagga is less than the zebra, with the hinder parts higher and the ears shorter. Both the zebra and quagga are



RHINOCEROS.



GNU OR HORNED HORSE.

found in greatest numbers near the Cape, but the former seems to be more widely dispersed than the latter. A third species, between the southern African quagga and the zebra, is found in large herds north of the Orange River. The antelope is the most numerous of the ruminating animals, there being no fewer than 50 species proper to Africa. The giraffe or camelopard inhabits the interior, as high as the Senegal. Several species of wild buffalo are also met with; but little is known regarding them, further than that they are large and fierce, particularly those near the Cape of Good Hope.

22. Among the cetaceous mammals that inhabit the seas and coasts of Africa, the most remarkable is that species of whale called lamatin (*manatus senegalensis*), an herbivorous animal, supposed to be the original of the fabulous mermaid. The rivers and coasts of Africa abound with various kinds of fish, some of the most splendid colors. Shell-fish are also abundant.



OSTRICH.

23. Of the ornithology of Africa, little more is known than that it comprehends a great number of birds of the richest plumage. Among the most beautiful of these is the sun-bird (*cinnyridæ*). The ostrich is now almost exclusively confined to Africa. Vultures are found among the lofty mountains of central Africa, and in the most inaccessible places toward the Red Sea. They are also found in the north of Africa and in the Cape Colony. The two principal species of African vultures are the *vultur Kolbi* (Kolbe's vulture) and the *vultur auricularis* or sociable vulture, the *oricou* of the French. The latter, which is of gigantic size, is extremely useful in consuming the carcasses of dead animals, which might otherwise pollute the air and engender disease. The Guinea hen is the only gallinaceous fowl adapted to the poultry yard that Africa possesses.

24. The crocodile inhabits all the large rivers in the tropical countries of Africa, and abounds in the Nile below the cataract, never being seen above it. Lizards, serpents, and various species of voracious reptiles abound in all parts of Africa. Among the insect tribes, of which there are many thousands, the locusts are the most remarkable, having been from time immemorial a scourge of the country. Hardly less formidable or destructive are the ants, which swarm in countless myriads in tropical Africa; in many places their habitations, seen from a short distance, present the appearance of a native village. They move in vast armies, consuming every animal and vegetable substance that comes in their way.



CROCODILE.

25. Our information respecting the races inhabiting Africa, like that on most other subjects connected with Africa, is imperfect. Generally speaking, however, Africa, north of the Senegal and east to Egypt, may be said to be inhabited by Arab races, known to us as Moors, Berbers, Kabyles, etc. Egypt is inhabited by Copts; and Abyssinia and Somauli by tribes chiefly of Caucasian origin, and much civilized. The original inhabitants of Cape Colony were Hottentots, who are now, however, confined to the territory north of the colony, washed by the Atlantic, and stretching north to about latitude 24° south. To the east of Cape Colony, as far as latitude 20° south, the coast—and how far inland is not known—is inhabited by Kaffirs. Central Africa, from the Senegal south to the country of the Hottentots and Kaffirs, and east to the Indian Ocean, is wholly inhabited, in all probability, by negro races.

26. The languages of Africa are far too numerous to admit of any attempt being made even to enumerate them. The most widely diffused are the Arabic, the Berber, and the Mandingo languages—the last prevailing over nearly the whole western coast, and the former two over all the northern and northeastern parts of the continent. In southern Africa the Hottentot and Kaffir languages are those best known. The number of languages spoken throughout Africa has been estimated at upward of 150—of which 33, it is said, are spoken between the Western Ocean and Red Sea.

27. As each of the various countries of Africa presents a peculiar social phasis of its own, and as these, with numerous other details, will fall naturally to be noticed in the respective articles on these several countries, we shall here confine ourselves to western Africa alone; that is, from about latitude 17° south to latitude 17° north—one of the most interesting portions of that continent. The social condition, generally, of this part of Africa is, as might be expected, extremely low; yet important facilities for improving this condition, and for the successful introduction of civilization, are not wanting. The black population are naturally of a kind, cheerful, and humane disposition; and where these may not exist, as in the case of a few tribes, there is an intelligence and general aptness which would readily appreciate and appropriate the advantages of civilized life. The African black has none of the moody, ferocious temper of the savages of the Pacific and South Sea Islands, nor any of the proud reserve and ruthless nature of the American Indian; while his love of music and song prove him to have feelings and tendencies eminently favorable to social refinement.

28. Among the Fellatahs, who are, perhaps, one of the most advanced of the different nations of western Africa, there exist many of the usages and customs of civilized life. It is matter of regret that there should be exceptions to this general good character of the African tribes; but so it is, there being several nations remarkable for their savageness and barbarity. Among these the Ashantees stand conspicuous, proving—and it is no solitary instance—the singular fact, that the cleverest and most intelligent races of Africa are the most cruel and ferocious. There seems little doubt either, that cannibalism prevailed, and probably still prevails, to a considerable extent among some of the tribes of western Africa.

29. In the industrial arts, the western Africans have made little progress, although some of the tribes, particularly the Ashantees, Ioloffs, Dahomans, and Koorankoes, evince considerable skill in working in metals, in tanning leather, and in the manufacture of cotton cloths; although, in this last, few of them being acquainted with the shuttle, they will take a couple of months to work what a European would dispatch in as many hours. In all matters connected with agriculture they are also miserably backward.

30. Mohammedanism and Fetichism (the latter from the Portuguese word "fetisso"—something sacred) are the prevailing religions of Africa, excepting in Abyssinia, where a debased sort of Christianity exists. A fêtiche may be any sort of substance—a stick, a stone, a horn, or any casual object—which, being chosen by an individual, is set apart, invested with.

a supernatural influence, and worshiped as a divinity. It is from that moment believed to be endowed with a power of doing good or evil, and is feared and courted accordingly. Several of the African nations have a supreme fêtiche, some having a serpent, others a cock, others a lizard, and other animals, besides those presiding over the destinies of families and individuals. At Cape Colony the public fêtiche is a rock that projects into the sea, close by the castle. Sacrifices are yearly made to this rock by the priests, with extraordinary gestures and invocations. Others of the negro tribes worship the sun, the moon, the stars, and others idols of human form. Human sacrifices are common among these nations, although, it is said, only on the occasion of the accession of a sovereign or during the prevalence of an epidemic. The victim, on these occasions, must be brought from a distance, and his fate carefully concealed from him till the fatal blow is struck, which it is in the presence of the assembled people and great men of the nation.

31. Of a vast portion of Africa we have so little knowledge as to preclude the possibility of even enumerating its nations. Nearly the whole interior is a blank on the political map. The principal nations of the north are Egypt, including Nubia, Abyssinia, etc.; Tripoli and Tunis; Algeria (now a French colony) and Morocco. The Sahara is only habitable in a few localities, and has a very sparse population. Soudan or Negroland is more populous, and comprises many nations—in Senegambia, the Foulah, Mandingo, Iolof, and several indigenous states; in Guinea, Ashantee, Dahomey, etc., and the Republic of Liberia; and in central and eastern Soudan, the Foulah Empire and a vast number of petty states. Southern Africa is occupied on the west coast by Loango, Congo, Angola, Benguela, etc., names of countries rather than of states, and on the east coast are the countries known as Magadoxa, Melinda, Zanguebar, Mozambique, etc. South Africa comprises the Trans-Waal Republic, the Orange River Sovereignty, and the British settlements known as Cape Colony, Natal, Caffraria, etc. Besides these Great Britain has settlements at Sierra Leone, Cape Coast Castle, and others on the Gold and Slave coasts. The Dutch hold Elmina and Axim on the Gold Coast: the former, nine miles west of Cape Coast Castle, is a well-built fort, garrisoned by a hundred men. The Danes have also a few inconsiderable posts on the Gold and Slave coasts, the chief of which is Christiansborg, the residence of the governor-general. The Portuguese have numerous settlements on both the west and east coasts, and the French on the Senegal and Gambia. Excepting Madagascar, all the islands of Africa are held by European governments as colonies.

REGION OF THE NILE.

1. VICE-ROYALTY OF EGYPT.

1. Egypt lies between the latitudes 24° 3′ and 31° 37′ north, and the longitudes 26° 20′ and 36° 30′ east; and is bounded on the north by the Mediterranean Sea, on the east by the Isthmus and Gulf of Suez and the Red Sea, on the south by Nubia, and on the west by the



RUINS AT THEBES.

Desert and the District of Barca. From Bourlos to the island of Philæ the length of Egypt is 520 miles, and its breadth, east and west, varies from 180 to 320 miles. The area is estimated at 177,948 square miles, of which, however, only about a tenth part is cultivated.

2. This country, remarkable alike for its physical peculiarities and for its place in history, extends along the Nile at the northeast angle of Africa, and embraces properly the lowest and most northern division of the valley of that river from the last cataracts to the sea.

3. The valley of the Nile throughout its whole extent, from Philæ to the vicinity of Cairo, is hemmed in on both sides by continuous chains of hills; those on the east side approach more closely to the river, while the Libyan hills on the west rise with a gradual ascent, and sometimes recede to a distance of 10 or 15 miles. Hence they appear less elevated than the eastern hills, which vary in height from 400 to 800 feet. Toward the Delta these chains of hills diverge; that on the eastern side turning east by Jebel Mokattem (that is, the hewn; so called, probably, from its quarries), near Cairo, and sinking gradually till it disappears in the Isthmus of Suez; while the Libyan chain skirts to the northwest the plains of the Natron lakes.

4. The desert between the Nile and the Red Sea is intersected by several chains of mountains, which increase in elevation toward the east, so that the ridges nearest to the Red Sea attain a height perhaps exceeding 6,000 feet; west of the Nile, on the other hand, the land evidently sinks, so that the Libyan chain separates the river from a wide valley, which is supposed to be not above the level of the sea, and may probably have received the waters of the Nile, and conducted them to the sea in early times, while the rocky channel through Lower Nubia was as yet but imperfectly opened. The appearance and physical character of this region is well described by the name "Bahr-bela-ma," or "river without water," now bestowed on a portion of it.

5. The openings or lateral valleys of the hills confining the valley of the Nile are comparatively few, or, being little frequented, remain unknown. Those on the east side, with which we are best acquainted, are the Valley of the Wanderings, leading from the neighborhood of Cairo to the head of the Gulf of Suez, and that through which passes the road from Koptos to Kosseir on the Red Sea. West of the Nile, in latitude 29° 20′ north, a deep sinuosity in the Libyan chain of hills forms the fertile valley of Fayoum (the sea or lake), in the northwest and lowest part of which is the lake named Birket-el-Kerun, the level of which is perhaps not above that of the river. The eastern part of the Fayoum was anciently the site of the celebrated Lake Mœris, the embankments inclosing which have been recognized and traced. From this valley a road leads west through the hills to the oasis of Dakhileh. The roads from Jirjeh or Girgeh and Esne to the Great Oasis are much frequented, and other openings of less note offer communication with the fertile spots which characterize the depressed region west of the river.

6. The oases above alluded to extend, in a narrow line, along the hollow region of the Libyan desert, parallel to the general direction of the valley of the Nile, and above 80 miles west of it. The Great Oasis, called, from its chief town, El-Wah-el-Kharijeh, lies immediately west of Thebes, and has a length of 200 miles, from latitude 24° 15′ to 25° 42′ north. About 50 miles west of the northern extremity of this oasis lies the Wah-el-Dakhileh, 24 miles long and 10 miles broad. In the parallel of Jirjeh, and west-by-south from the Fayoum, the date-groves of the Little Oasis (Oasis Parva) or Wah-el-Bahireh, display their unusual verdure. In this fertile spot artesian wells are numerous, and some of ancient construction. On the road between this oasis and that of El-Dakhileh, inclining to the west, occurs half way the Wah-el-Ferafreh, of small extent. West of Fayoum, and about 200 miles from the Nile, lies the oasis of Siwah, where the foundations of the once celebrated temple of Jupiter Ammon may still be traced. The inhabitants of this secluded spot, though tributary to Egypt, are in language and manners wholly Libyan. The region of the oases terminates toward the north in the desert of the Natron lakes. The deserts on the west bank of the Nile generally present to view uniform plains of gravel or of fine drifting sand. On the east the scene is varied by rocks and mountains, but the aridity is extreme, and the heat, reflected from cliffs, is often insupportable.



VIEW ON THE NILE.

7. The Nile receives no accession from tributary streams (occasional torrents from extraordinary rains excepted) in the last 1,500 miles of its course. It enters Egypt with a breadth of 3,000 feet, and though often contracted lower down to 2,000 feet, its average width throughout may be taken at half a mile, and therefore, with the canals depending on it, bears a considerable proportion to the whole area of the habitable valley.

8. Of the canals, one of the most remarkable is that commonly called the Bahr Yusef, or Joseph's river or canal, which, leaving the Nile at Deirut (latitude 26° 15′), runs along the foot of the Libyan hills, which it enters at the opening of El-Lahun, and, having watered the valley of Fayoum, it again issues from the Libyan chain and joins the Nile. The Bahr Yusef has a length of 140 miles, and the level plain, often 10 or 12 miles wide, included between it and the Nile, forms, with the valley of Fayoum, the most fertile part of Egypt. Popular belief ascribes the construction of this water-course to Joseph, but competent observers pronounce it to be an ancient branch of the river, flowing between banks for the most part of natural origin. It has a general breadth of 300 feet, and winds like the Nile.

9. The apex of the Delta was, in the time of Herodotus, at Cercasorus, 10 miles below Memphis; it is now about six miles still lower down, at Batn-el-Bakara. The river, at the early period referred to, separated at once into three branches, the Canopic going northwest, the Pelusiac northeast, and the Sebennytic branch proceeding directly north to the sea. But the latter threw off also two other branches, namely, the Saitic west and the Mandesian east. Near the former of these flowed the Bolbitine, and, at some distance to the east, the Bucolic branches, both artificial. These were the seven mouths of the Nile as described by Herodotus (from whom later writers differ in many particulars); and it is remarkable that at the present day only two of them continue to flow in uninterrupted navigable channels to the sea, and those are the Bolbitine and Bucolic (the artificial) arms, now named respectively, from the towns at their mouth, the Rosetta (Rashid) and Damietta (Dimyet) branches. The artificial branches probably owed their superior permanence to the circumstance of their being cut in a straight line, so that their banks were not liable to be impinged on by the current. The other ancient arms of the river may still be traced, more or less satisfactorily, among the numerous canals which intersect the Delta, and terminate, for the most part, in the lakes bordering the sea-coast.

10. One of the greatest works carried on in Egypt in modern times is that projected by

Mohammed Ali for the damming up or barrage of the Nile below Cairo, and for the establishment of canals above the barrage which should carry the water of the stream over the surface of Lower Egypt. The barrage is established at the point of the Delta where the Nile bifurcates into two great branches which flow, one to Rosetta, the other to Damietta. It is 118 miles from Alexandria, and 99 miles from Rosetta—12 miles below Cairo, in view of the great pyramids of Gizeh.

11. The first place among the lakes of Egypt has been hitherto usually assigned to the Birket-el-Kerun, lying northwest of El-Fayoum. It has a length of about 34 miles, and a general breadth of six miles, its direction being from west-by-south to east-by-north. On its shores stands a castle, the projecting spouts of which have procured for it the appellation of Kasr-el-Kerun (Horn Castle), whence the lake takes its name. In cases of high flood, the Nile makes its way to the Birket-el-Kerun, which then rises four or five feet. About 50 miles north of the Birket-el-Kerun, where the Libyan chain of hills, west of the Nile, begins to sink in the desert, a low tract, extending southeast to northwest, exhibits in the rainy season a chain of pools, known as the Natron lakes; from which in the dry season the water evaporates, leaving the ground thickly incrusted with natron.

12. The fertile land of the Delta is, for the most part, separated from the sea by a series of lakes, or rather vast lagoons, which are themselves fenced from the sea by very narrow necks of land. On the west side of the Delta, and proceeding west to east, these maritime lakes are Mareotis, Madyeh or Abukir, and Edku or Etko. They all communicate with the sea by shallow openings. Between the Rosetta and Damietta arms of the Nile, Lake Bourlos occupies half of the coast, or above 30 miles; while east of the latter arm Lake Menzaleh covers an extent of 500 square miles; and Lake Bardowal (Sirbonis) stretches 70 miles still farther east. Altogether, the frontier covered by these lagoons has an extent little short of 200 miles. From the southeastern angle of Lake Menzaleh a low tract, annually converted into a swamp during the inundation, winds south-by-east across the desert isthmus to Suez; in the southern part of this tract are the Bitter lakes, which are very like the Natron lakes on the west.

13. The general rocks of Egypt are limestone, sandstone overlying the former, and granite, which breaks through and overspreads both. The granite region lies at the southern extremity of Egypt. In Lower Nubia the summits of the granite rocks rise 1,000 feet above the level of the river. This rude and wild scenery continues down to Assouan, where the cataracts are formed by the cliffs and broken masses of granite which lie in the bed of the river. Granite of many varieties may be found here; but the rock at Assouan or Syene is not the syenite of modern geologists. Blackened by the sun's rays, and often highly polished, these rocks have been frequently mistaken for basalt; and indeed it is not certain that truly volcanic rocks may not be found mingled with the granite. The cliffs near Assouan have supplied the materials for all the colossal monuments of Egypt.

14. From Assouan to Esne (latitude 25° 19′ north) extends the sandstone formation, which is very durable and easily worked. The quarries at Jebel Silsilis (chain mountain), and a few other points in this region, furnished the materials for the superb structure of Thebes, and, indeed, for most of the temples of ancient Egypt. Below Esne the limestone predominates, though sandstone hills still occasionally interrupt the calcareous range. The limestone region is more tame and monotonous in outline than those of the sandstone and granite, and more frequently affects the form of table-land. Thus the pyramids of Gizeh, built altogether of limestone, stand on an elevated plain of the same material. The Egyptian limestone is generally gray, containing fish, shells, and corals; but in the eastern desert specimens have been found of handsome marble; and in the parallel of Minieh, latitude 28° 4′ north, and about 100 miles east of the Nile, were discovered a few years ago the splendid ruins of the ancient Alabastropolis, which once derived wealth from its quarries of alabaster. Farther south in the desert, toward the limits of the granite, we come upon the ancient mines or quarries of jasper, porphyry, and verd antique. The emerald mines of Zebarah lay near the Red Sea, in the parallel of Syene.



PYRAMIDS OF EGYPT.

15. The alluvial soil of Egypt is a no less interesting object of study than the rocky foundation on which it rests. The Nile, during the floods, deposits in the valley of Egypt the earthy particles with which it becomes loaded in the early and impetuous part of its course, and it is easy to recognize, in the dark-brown mold of Egypt, the disintegrated trachytes of Abyssinia. Wherever the velocity of the stream is checked, the earthy sediment is deposited, and a thin, slimy film spreads over the ground. The accumulation of this fine sediment becomes very perceptible in the course of ages, the inundated land of Egypt, with the bed of the river, being gradually raised by means of it. The banks of the Nile, as they first check the current, receive the largest share of the deposited soil, and hence they are higher than the adjacent fields, which also generally decline a little from the river. Thus it appears that the Greeks were in some measure justified in saying that Egypt is the gift of the Nile.

16. The climate of Egypt is remarkable for its dryness and general uniformity. In no other country is one day so like another; winter on the banks of the Nile has no rigor, and the heat of summer is rarely oppressive. As the extension of the country, however, is chiefly from north to south, there is a considerable difference between the mean temperature of Upper and Lower Egypt; but peculiar circumstances, such as the vicinity of the sea and the freshness of the north wind, modify at the northern and southern extremities of the country, respectively, the cold of winter and the burning heat of summer. In the Delta, the mean temperature of winter is about 54° Fahr.; that of summer, 82°; at Assouan the thermometer often rises, in the latter season, to 96°. It is, however, characteristic of Egypt and the neighboring deserts, that a great fall of temperature, from 14° to 20°, takes place at night, owing, as it is usually explained, to the setting in of the north wind at sunset, or rather perhaps attributable to the general dryness and perfect transparency of the atmosphere, which favor rapid evaporation and the radiation of heat. This nocturnal cooling sometimes, though very rarely, sinks just before sunrise to congelation, and ice has been found on the Nile even at Syene.

17. The hot south wind or Khamsin (that is, 50 days' wind) sets in at the vernal equinox, and lasts, as the name implies, nearly two months, the thermometer sometimes rising during its continuance to 100°; easterly winds prevail after the autumnal equinox; during the remainder, or about eight months of the year, the wind blows from the north and neighboring points. In the maritime parts of the Delta heavy falls of rain occur 25 or 30 times between October and March; only half of this quantity falls at Cairo, and above the 26th parallel rain is hardly known; hail is very rare, and still more so snow, which fell, nevertheless, in 1833, in the Delta, to the great surprise of the people.

18. There seems to be little reason for supposing that the climate of Egypt is insalubrious, although the habit of sleeping on the terraced roofs in the open air, regardless of the violent and sudden changes of nocturnal temperature, breeds much feverish disease; while the extraordinary but unheeded effulgence of the Egyptian sky, acting on eyes irritated by the fine sand which, as the native adage says, can make its way through an egg-shell, gives rise to ophthalmia. As to the plague, it is doubted whether it be generated in Egypt; but its rapid diffusion, as well as the prevalence of elephantiasis, and other apparently endemic diseases, may be naturally ascribed to the filthy habits of the people.

19. In Egypt, where there is in fact no winter, the distinction of seasons depends immediately on the Nile, and with the state of the river the aspect of the country undergoes the greatest changes. The seasons are there reduced to three—the inundation, spring, and harvest. At the beginning of June, the hot winds being over, and most of the crops cut, the country begins to resemble the adjacent desert, and the parched ground cracks and opens in all directions, when in the third week of the month the river is observed to rise. The increase of the water becomes in a short time regular, till it reaches its maximum about the second week of September. Its progress is watched with much anxiety, for should the flood fall short of the expected measure, famine must ensue; but should it, on the other hand, exceed the ordinary limits, it may break down the embankments, sweep away villages, and carry desolation in its course. The Nile may rise at the present day 28 feet without occasioning any damage. As the canals become filled, the water is allowed to run over the fields and gardens, the low dams which protect them being successively trodden down. During this season Egypt resembles a great sea, in which the towns, villages, and groves of trees figure as so many islands. By the middle of November the river has returned to its old bed, and as the waters retire the fields emerge from the inundation in a most unsightly guise, covered with blackish mud; but this state of things does not last long; the seed is quickly sown; the refreshed earth teems with life; and in an incredibly short time the face of the country, lately so deformed, is clothed with the richest verdure. This spring-time lasts till the Khamsin or hot winds, after which comes the harvest, and occupies the period that intervenes till the return of the inundation, or from April till June.

20. The wild plants of a country such as Egypt are necessarily few; and these being natives of the desert, have no very interesting character. These desert plants are generally dicotyledonous annuals, characterized by a hairy or thorny exterior, long roots, and leaves of pale green color and dry texture. The most common wild shrub is the acacia seyal, which is almost leafless, and armed with long thorns; its crooked stem usually collects round it a heap of fine sand. The palm-tree is rarely seen in a perfectly wild state; yet forests of the date-palm, of great antiquity, exist on the eastern borders of the Delta, and on the site of Memphis. This tree attains a height of 60 or 80 feet. The doum-palm (*cucifera thebaica*), singular in its bifurcated forms, arrives at perfection in Upper Egypt, and yields a fruit of the size of an orange, but much less esteemed than the date. The sycamore is the largest and most umbrageous of Egyptian trees, often attaining a circumference of 20 or 30 feet, but with moderate height; it bears a kind of fig on its trunk and larger branches. The oranges, figs, and tamarinds of Egypt are excellent; the European fruits grown there are of inferior quality. The chief timber trees are the acacia lebekh, the cypress, and the Aleppo pine. The sant or acacia nilotica, valuable for its hard wood, and producing gum-arabic, increases in size as we ascend the Nile.

21. The list of the wild animals of Egypt is even still more scanty than that of its flora. The wolf, hyena, and jackal, habitual inhabitants of the desert, occasionally visit the valley of the Nile; there the ichneumon or mangouste, which lives chiefly on eggs, and preys on those of the crocodile among others, is still numerous. The jerboa or kangaroo-like rat burrows in the sands, and frequents, in great numbers, the plains of Gizeh, round the pyramids. The crocodile very rarely descends the Nile below Jirjeh, and the hippopotamus has long since retired to Upper Nubia, and never visits the waters of Egypt, except when forcibly borne down by the flood. A remarkable peculiarity of Egypt, handed down from ancient times, is the practice of hatching eggs by the artificial heat of ovens. Wild swine are still numerous in the marshes and thickets bordering the Delta.

22. As Egypt embraces two widely different regions, namely, the broad plains of the Delta, and the comparatively narrow valley of the river higher up, so it naturally falls into two parts or divisions, namely, Upper and Lower Egypt. These were anciently regarded as



separate kingdoms, denoted in hieroglyphics by different crowns or royal tiaras. Whenever they were united under the same rule, the Pharaoh bore the title of "The Lord of the Two Worlds." But the lower part of the valley, which includes the Fayoum, and the plains watered by the Bahr Yusef, differs widely again from the narrower portion higher up; hence the division into Upper, Middle, and Lower Egypt; or, to use the Arab names, Said or Mares (in Coptic, the South), Wustani, and Er-Rif. Upper Egypt or the Said was often named by classic writers the Thebais. These ancient territorial divisions, being founded on nature, have never fallen wholly into disuse, though disguised under new names.

23. At the present day Egypt is divided into 18 provinces, and these into departments and cantons:

Provinces.	Population.	Provinces.	Population.	Provinces.	Population.
Thebes and Esneh	86,888	Atfieh	45,928	Garbieh (Abyar)	230,456
Girjeh	326,160	Gizeh (south part)	101,920	Rashid (Rosetta)	13,440
Siout	189,900	Quelioub	177,488	Menouf	224,480
Minieh	154,256	Sharkijeh	189,668	Bahireh	89,528
Benisouef	184,120	Mansourah	197,000	Cairo (with Boulac)	218,560
Fayoum	58,480	Damietta	13,600	Alexandria	12,528

—the first three provinces being in Upper Egypt, the next four in Middle Egypt, and the remaining eleven in Lower Egypt.

24. Of the inhabitants of Egypt, the great majority—those of the peasant class or Fellahs, as they are called—are undoubtedly indigenous, and may be regarded as descendants of the ancient Egyptians. The Copts are the Egyptians who still cling to the Christian faith; though comparatively few, they contrive to hold a respectable position in society by means of their education and useful talents. They are thus widely separated by their faith and social lot from the Fellahs (who are Mohammedans), though of kindred race with them. The Fellahs are generally peasants and laborers; the Copts fill the posts of clerks and accountants. With these aboriginal Egyptians are mingled, in various proportions, Turks, Arabs (chiefly Bedouins), Armenians, Greeks, Berbers, Negroes, Jews, and Franks. The Turks form a privileged class, or kind of aristocracy, and hold the principal offices under government. The Arab tribes considered as belonging to Egypt, and to whom lands have been assigned, are the Bedouins, who supply the country with camels, sheep, and to some extent with horses. Their haunts are on the borders of El-Fayoum. The Armenians are generally bankers or jewelers; the Greeks are all merchants and traders. The Berbers, from Lower Nubia, below the second cataract, do all porters' work, while the negroes are preferred as domestic servants. The most recent estimate enumerates the several races composing the population as follows: native Egyptians 2,200,000, Copts 140,000, Turks 12,000, Arabs 70,000, Berbers 5,000, Negroes 20,000, Abyssinians 5,000, Circassian and Georgian slaves 5,000, Jews 7,000, Syrians 5,000, Armenians 2,000, Greeks 5,000, Europeans 9,500. But these figures must be taken as mere approximations, no actual census having been made. The above figures are the result of giving eight persons to each house in Cairo and four to each in the country districts.

25. The government of Egypt being in the hands of Turks, is, as might be expected, an unqualified despotism. Under the first viceroy, and founder of the present dynasty, Mohammed Ali, it became in practice more enlightened, liberal, and humane; but its simple fundamental principles remain unchanged. He commenced his great reformations in 1808 by abolishing the right of private individuals to hold estates in land. Thus he became the proprietor of the whole kingdom (houses and gardens excepted), and found himself in a position to carry out his schemes of improvement; and took into his own hands all the agriculture, as well as all the manufactures of the kingdom. He aimed at developing the resources of Egypt, but he never dreamed of turning to account the mainspring of national prosperity, namely, the untiring energy with which every man labors to promote his own welfare. As to the well-being of his people in general, nothing could be farther from his thoughts. They were reduced by him to the deepest distress, while he certainly amassed no treasures.

26. The system of husbandry is probably the same now as it was 3,000 years ago, wherever the government has not interfered with it, by introducing new objects of culture. The Egyptian peasant is extremely tenacious of ancient usages; his plow at the present day exactly resembles that figured in the hieroglyphics; for a harrow, he uses a roller made of a piece of the trunk of a palm-tree; and he allows no rest to the inundated land, but relieves it only by change of crops. The efforts of the government, however, to increase the commercial resources of the country, have disturbed the traditional routine. The cultivation of cotton, begun in 1821, has now extended widely; indigo succeeds in the Fayoum and Upper Egypt. The growth of the sugar-cane is confined to the latter country, the manufacture of the sugar being carried on at Minieh. For the sake of the silk manufacture, millions of mulberry trees have been planted in Egypt. The cultivation of the olive is also encouraged; and attempts have been made even to naturalize the coffee-plant, clove, and cinnamon.

27. The ancient custom of uniting the followers of each business or profession into a guild or corporation is still adhered to. These guilds are exceedingly numerous, as might be expected among a people whose social organization reaches to a remote antiquity. Of all these trades, however, very few claim especial mention on the score of importance or singularity. Among these few we must place the business of the mahm-al-farujy or egg-hatching establishments, at which twenty-four millions of eggs are submitted annually to the vivifying ovens. The business of tanning, also, is one in which the Egyptians succeed perfectly by a process peculiar to themselves. They make excellent morocco leather, which is goatskin dressed and dyed in a particular manner.

28. The pottery of Egypt, also, deserves a word of praise, chiefly for the merit of the bardaks or water-jars. The best bardaks are those made at Kenneh, which, besides being impregnated with a fine and lasting perfume, are, in various degrees and forms, permeable to water; so that while some serve as filters, others exude the purified fluid and keep it cool by evaporation, which effect, in such a climate as Egypt, is a matter of great importance. These jars are transmitted to Cairo in a singular manner. They are tied together in large numbers, with their mouths downward, and thus forming long rafts are floated down the Nile. But what may be called indigenous industry, though it could claim a long list of trades and occupations, is too rude and primitive to supply the wants of the country under the new system of things.

29. Manufactures on a large scale, which are carried on with skill and capital, and the aid of machinery, all owe their establishment to the late Mohammed Ali, and are, in fact, the property of the government. That energetic ruler had incautiously embraced the doctrine, that it is always more advantageous to produce than to purchase, and consequently he sought to supply all the wants of the country from within, imagining that every branch of industry which flourished elsewhere would prove profitable in Egypt also. He established above 20 cotton mills on a large scale, horses or oxen being employed as the moving power. His linen manufactories deliver annually 3,000,000 pieces, and compete in Italy with those of Germany and England. The manufacture of silk, as well as the rearing of the silk-worm, received from him a powerful impulse. Then woolen cloth, hempen cordage, sugar, indigo, oil, gunpowder, and various chemical products, all engaged his attention; and in every case he established manufactories, to be conducted on the public account. He even went so far as to establish an iron-foundery at Boulac, a suburb of Cairo, on the Nile. This experiment, made on a handsome scale in a country not affording either iron ore or fuel, and where machinery is soon destroyed by the fine sand and the corrosion of the atmosphere (owing, perhaps, to the presence of carbonic acid), must necessarily have proved a serious loss. His establishments for the manufacture of fire-arms, and of military accoutrements in general, merit commendation on grounds of policy, if those of economy be insufficient.

30. The trade of Egypt with European states has its seat at Alexandria. The exports consist principally of raw native produce and merchandise brought by caravans from the interior of Africa: cotton, beans, peas, rice, wheat, barley, flax, hides, etc., being the chief native exports; and ivory, gold-dust, gums, ostrich feathers, etc., those from the interior. The imports from European states consist chiefly of manufactured goods of all sorts, machinery, coals, iron and iron ware, cloths, liquors, sugar, etc.

31. The total values of the imports and exports, according to the custom-house reports for the years 1841, 1846, 1851, and 1856, five years apart, were:

Imports			Exports		
1841	$12,354,366		1841	$9,024,830	
"	1846	8,750,692	"	1846	9,508,211
"	1851	10,967,039	"	1851	16,171,245
"	1856	10,705,918	"	1856	23,192,066

The states having the principal share in this trade are England, Austria, France, Tuscany, Greece, Turkey, Syria, etc. The chief commercial relations with Arabia and India are carried on by Cosseir and Suez, and since the establishment of regular steam-packets on the Mediterranean and Indian seas, Egypt has become the route between England and its Eastern possessions. To facilitate the land transit from sea to sea, a railroad, 120 miles long, has been constructed between Alexandria *via* Cairo and Suez. It is also proposed to excavate a ship-canal across the Isthmus of Suez. These works may again render Egypt the great entrepôt of commerce between the East and West.

32. The revenues of Egypt are derived from various sources, the chief being the miri or land tax, for which the districts are answerable, however individuals may fail, so that the government is sure to be paid. This yields nearly half of the whole revenue. Next in importance are the proceeds of monopolies, namely, of cotton, indigo, sugar, rice, opium, etc. Then come the capitation, the customs, taxes on grain brought to market, on cattle slaughtered, on date-trees, fishing, etc.; in all producing about $19,125,000.

33. The Egyptian army is composed of 24,000 regular troops, 4,500 of whom are cavalry, and of about 40,000 national guards. To these may be added about 40,000 irregular cavalry (Bedouins, chiefly in Arabia). The fleet consists of 7 ships of the line, 6 frigates, 4 corvettes, 7 brigs, 2 mail steamers, and 23 transports; connected with it and with the arsenals is a force of 40,000 men. Thus the forces maintained by a prince whose revenues hardly exceed nineteen millions, can not altogether fall much short of 100,000 men. The officers, those of high rank especially, experience liberal treatment; but the men, who have for the most part entered by conscription, are miserably paid.



BAB-EL-NASR AND PART OF THE WALLS, CAIRO.

34. The only towns of Egypt which demand notice in this connection are Cairo, Alexan-

dria, Damietta, Rosetta, etc. The smaller towns have little external interest except so far as relates to their antiquities and works of art, which are elsewhere mentioned.

35. Cairo (El-Kahireh), the capital and seat of government, is built near the right bank of the Nile, and about five miles from the origin of its Delta, latitude 30° 2′, and longitude 31° 16′; elevation 41 feet above sea-level. The city proper is built on a slope at the foot of one of the lowest ridges of Jebel Mokkatem, and occupies an area of about three square miles. It is surrounded by old walls, and the highest part of the ridge is crowned by a citadel which contains the palace of the viceroy, the arsenal, mint, and public offices. The citadel is commanded by forts placed on the extremity of the chain of Mokkatem. The suburbs Boulac and Misr-el-Aatik are separated from the city proper by a series of gardens and plantations.

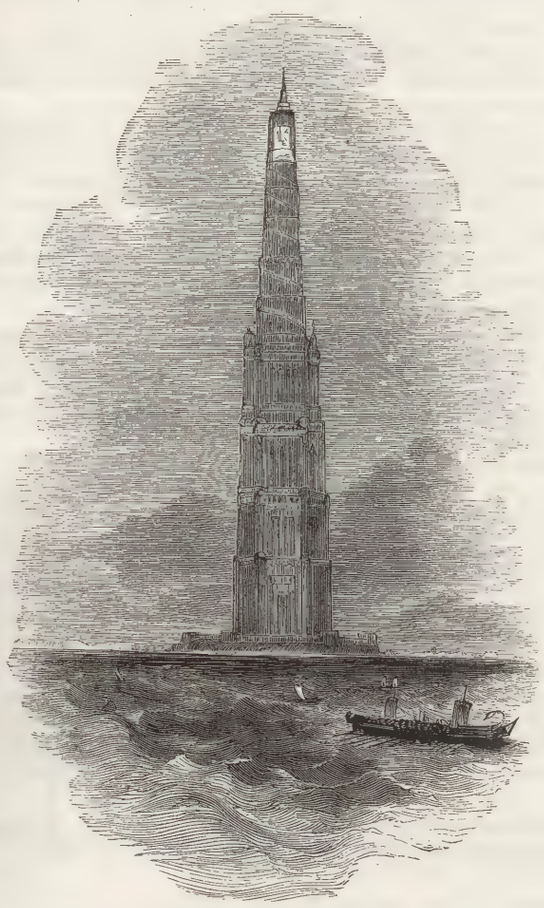


STREET IN CAIRO.

36. Cairo is divided into several distinct quarters according to the religion and race of its inhabitants, and these are separated by gates. The streets are crooked, narrow, and ill-paved; but there are many squares, and the dwellings are generally substantial. The remarkable edifices of Cairo comprise many of the finest remains of Arabian architecture; among them are between 300 and 400 mosques, several ancient gates, an aqueduct for conveying water from the Nile to the citadel, the ancient works of the citadel, and the palace and well of Joseph. At old Cairo are the seven towers, still called the "granary of Joseph," and serving their ancient purpose. Numerous ancient cisterns and baths still ornament the city. On the south, outside the walls, are the celebrated tombs of the Mamelukes, and on the northeast the obelisk of Heliopolis.

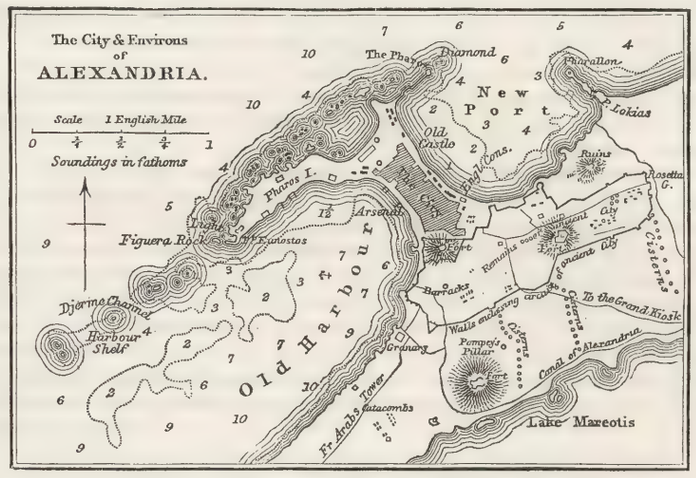
37. Among the modern edifices, the only two of consequence are the new palace, with extensive gardens on the Nile, between Boulac and old Cairo, and the handsome residence of the viceroy at Shoubra. In the city are several schools, a museum of antiquities, a magnetic observatory, several hospitals, etc. Cairo was long the chief entrepôt for the commerce of Egypt, but its trade has much declined. It has, however, many extensive manufactures: cotton-spinning mills, iron founderies, bleacheries, etc.

38. Boulac, a mile northwest, is the port of Cairo, and here all vessels navigating the river load and unload their cargoes. Around it are numerous residences of grandees. Cairo was founded by the Arabs about 970.


PHAROS OF ALEXANDRIA.

39. Alexandria (Iskenderyeh), near the westernmost branch of the Nile on the Mediterranean, is the principal sea-port, latitude 31° 12′, and longitude 29° 53′—120 miles northwest Cairo, with which it communicates by railroad, the Mahmudiyeh Canal, and the Nile. The modern city is built on a peninsula (anciently the island of Pharos), and the isthmus connecting it with the continent. Alexandria is generally a well-built city, and in its newer parts has more of a European than an Asiatic or African aspect. The principal buildings and institutions are the new palace, a large naval arsenal, the naval and military hospital, custom-house, tribunal of commerce, school of instruction, and medical, naval, and other schools. A castle called Farillon replaces the famous "Pharos" of antiquity. Alexandria has two ports, occupying the opposite sides of the isthmus; in the western and best, ships anchor in from 22 to 40 feet water. It is the principal commercial entrepôt of Egypt, and an important station on the overland route between Europe and India. The ancient city was built on the mainland, where its ruins cover a vast extent of surface. It was founded by Alexander the Great in 322 B. C. Two granite obelisks, called Cleopatra's Needles, still remain entire.

40. Damietta, on the east branch of the Nile, eight miles from its mouth, is generally a meanly built town, but has some good mosques, baths, etc. Its harbor is bad, and its commerce has mostly been transferred to Alexandria, and at the present day consists of little more than a coasting and river trade. Rosetta, on the west branch, is pleasantly situated and neatly



built, and has still a thriving general trade and some manufactures, but since the opening of the canal between Alexandria and Cairo, its importance and population have greatly decreased.

41. Suez, at the head of the gulf of the same name, is a frontier sea-port, and from its position on the high road between the East and West, has always been a place of extensive transit trade. It is a wretched town, however, and so inferior is its port, that steamers are obliged to moor two miles from the town.

42. The only towns of modern importance in Upper and Middle Egypt are—Atfieh, Benisouef, Medinet-el-Fayoum, Minieh, Ashmouncin, Es-Siout, Akhmin, Girgeh, Kenneh, Esneh, Assouan, and Cosseir. Alfieh stands on the right bank of the Nile in latitude 29° 28′, and is the capital of a province. Benisouef contains several mosques, caravansaries, and is in general a handsome town. It is a great mart for the neighboring thickly-peopled country. Medinet, the chief town of Fayoum, is a large and populous city, and occupies the site of the ancient Arsinoe. Minieh, on the left bank of the Nile, latitude 28°, contains several mosques, straight clean streets, and rather neat shops, and appears to be more opulent and populous than any of the towns farther down the river.

43. Es-Siout, the capital of Upper Egypt, about a mile and a half from the left bank of the Nile, latitude 27° 9′, is a place of considerable extent, nearly circular, and surrounded with spacious gardens in the midst of sand-hills. It carries on a trade in linen cloths, earthenware, natron, and opium. Akhmin, 30 miles south, is a manufacturing town, and contains the ruins of a temple and catacombs. Girgeh, the old capital of Upper Egypt, is still a considerable place, and contains mosques, minarets, and a number of other fine buildings. The city stands in the midst of a very fertile country, and being surrounded by groves of date-trees, has an aspect of exquisite beauty. Kenneh, on the right of the Nile, latitude 26° 10′, is famous for its manufacture of pottery, called "bardaks," made of porous clay, and in great request all over Egypt as water-coolers. It is also a depôt of commerce and station for pilgrims. Esneh, the last great town that occurs in ascending the river on its left bank, latitude 25° 18′, is a trading place and rendezvous of the caravans of Darfur and Sennar. It manufactures cotton, pottery, and shawls, and is famous for its great camel market. Assouan has considerable trade. Cosseir is a port on the Red Sea, and has a good trade, though the harbor is small and the anchorage none of the best. Cosseir is 119 miles from the Nile at Kenneh. The road passes over a perfectly level tract.

44. Passing over the years during which Egypt was ruled by gods and demigods, we come to the mortal Menes, the founder of the first of 30 dynasties, recorded more or less perfectly by Manetho, the high-priest of Isis who lived about 300 B. C. But so arbitrarily has the high-priest's information been dealt with, that we can not decide whether he places Menes 5,400 or 3,900 years before the Christian era. However, it is worthy of remark, that the son and successor of Menes is said to have written a book on anatomy, and to have had a temple at Memphis. This city was already, under the second dynasty, the capital of the kingdom.

45. With the fourth dynasty begins the period of undoubted cotemporary monuments. Shufo (Cheops) built the great pyramid, in which his name is written; his immediate successor built the second; and his nephew, Menkare, the third. A portion of the coffin of Menkare, with his name inscribed on it, is now in the British Museum, being probably the oldest specimen of writing extant beyond the pyramids and the tombs of Gizeh and Sakkara. These earliest known specimens of hieroglyphic writing exhibit the art in complete maturity, and, coupled with the pyramids and other art-products, prove that Egypt under the fourth dynasty was already far advanced beyond the infancy of civilization.


EGYPTIAN SPHYNX.

46. The eleventh dynasty was the first of the Diospolitan or Theban kings, whose celeb-

rity, however, commenced with the twelfth, to which belonged Sesortasen, one of those kings whose achievements have been heaped on the half-fabulous Sesostris; and of whom there remains an inscribed pillar recording his conquests in Nubia, and his son Ammenemes III., who embanked Lake Mœris and built the labyrinth. This edifice, the foundations of which may be still traced, appeared to the Greeks, even while Karnak stood in all its glory, to be the greatest and most wonderful in the world. The memorials of this distinguished dynasty are written or graven on the walls in the grottoes of Beni Hassen.

47. The fifteenth and two succeeding dynasties were those of the Hyksos or shepherds, whose tyrannous rule continued for some centuries. These shepherds, that is, pastoral, and comparatively rude tribes, appear to have been the Canaanites, who, on their expulsion from Egypt, founded Jerusalem.

48. With the eighteenth dynasty begins the most brilliant period of Egyptian history and the greatness of Thebes. Aahmes (Amosis), the first king of the eighteenth dynasty, is supposed by some to have been the Pharaoh (Ph-re, king) under whom the Exodus took place; though others suppose the Exodus to have taken place in the reign of Ramses (Sesostris), the last king, or last but one of this dynasty. Subsequently comes a series of great princes—Amenoph, Thothmes, Horus, Ramses, and Menephthah, to whom are due the grand monuments of Karnak, Luxor (El-Akhsar), Medinet Abu, Amada, Semneh, etc. The inscriptions of these victorious kings are found at the present day from Syria (at the Nahr-el-Celb) to Jebel Barkal, above Dongola in Nubia. Their conquests are recounted on obelisks, temples, tombs, and represented by paintings, with hieroglyphic explanations, so elaborate and frequent as to furnish the material of a voluminous, though still obscure literature. The tombs of the twelfth dynasty are, many of them, in the valley named Biban-el-Muluk (Gates of the Kings), extending in subterranean chambers, with painted or inscribed walls, to a distance, in some instances, of 350 feet. Some papyri, written in the reign of Menephthah II., the last of this dynasty, have been partially interpreted, and throw a curious light on the manners of the age. One of them contains instructions written by a minister of state for the secret preparation of a certain feast, whence it appears that the Ethiopian feast entitled, "Table of the Sun" (in old Egyptian phrase, the king), as described by Herodotus 800 years later, had its origin in Thebes.



RUINS OF KARNAK

49. Under the twentieth dynasty began the decline of Egypt and of Egyptian art, while Assyria, on the other hand, now rose. A Pharaoh, probably the last of the twenty-first dynasty (Tanites, by Isaiah called the princes of Zoan), gave his daughter in marriage to King Solomon (1 Kings ix. 16). The twenty-second began with Sesonchis, the Shishak of Scripture (the first Pharaoh mentioned by name in the sacred volume), to whom Jeroboam fled, and who afterward sacked Jerusalem. In the paintings at Karnak, which represent his conquests, this event is shown in detail, and the written title, "King of the Jews," points out the principal captive. The next dynasty was founded by Sabaco (So, the ally of Hosea, 2 Kings xvii. 4), originally from Upper Nubia. His name, as well as that of his follower Tirhaka or Zerach the Et' iopian, is found on the monuments.

50. The twenty-sixth dynasty is distinguished chiefly by Psammeticus, in whose reign the Greeks began to grow numerous in Egypt. This was followed by the Persian Cambyses and his successors for 124 years, after which period we have again three dynasties of native princes, the last king of Egyptian race being Nectanebus, of whom there remains a temple and inscription at Philæ. He was driven from the throne in 841 B. C. by a usurper, who was soon after displaced by Darius Ochus; and he in turn in 332 B. C. by Alexander.

51. In A. D. 639 the Arabs effected the conquest of Egypt, which, under the Mohammedan rulers, soon became totally metamorphosed, at least in spirit. In the great monuments of the ancient Pharaohs the followers of the Caliphs saw nothing but the work of Jins. In 1250 the government was seized by the Mamelukes (slaves chiefly from Caucasus, bred to military service), who had grown into power by the favor of Saladin. These were subdued by Selim, the Ottoman Sultan, in 1520; but the descendants of the defeated chiefs kept the country in disorder for more than two centuries, and when, in the first half of the eighteenth century, the Ottoman Empire was hard pressed by Russia and Austria, Egypt fell again under the turbulent sway of the Mamelukes, who continued to retain the sovereign power during the French invasion in 1798.

52. But on the expulsion of the French by the British forces, the Ottoman Porte effectually urged its claim to sovereignty, and the young officer commanding the Turkish forces, Mohammed Ali Bey, contrived to shorten the contest by entrapping and treacherously murdering the Mameluke leaders. Such was the act which founded the fortunes of the future pacha. As he consolidated his power in Egypt, the Porte, with sinister intentions probably, commanded him to suppress the Wahabees, a fanatical sect in Arabia, grown formidable by their numbers and audacity. But his energy and perseverance overcame all difficulties. He subdued the Wahabees, and annexed to his dominions all the provinces of Arabia bordering on the Red Sea. On the banks of the Nile his conquests extended to Sennar and Kordofan.

53. At length he broke openly with the Porte, and the Ottoman and Egyptian forces meeting in the plains of Nizib, in Syria, in June, 1839, the latter gained a decisive victory; the result of which was a treaty confirming to Mohammed Ali the viceroyalty of Egypt as a fief of the Ottoman Empire, hereditary in his family. The sway of the viceroy of Egypt extends over the country on the banks of the Nile as far south as Fazoklo and Singue (latitude 10° 30′ north), where the gold-washings begin, and as much farther as he can uphold by means of occasional incursions. He claims the western oases, though the subjection of Siwah is little more than nominal. He possesses Kordofan, and is master of the Hejaz in Arabia.

NUBIA, SENNAR, ETC.

54. NUBIA, in a more or less restricted sense, is a name given to the countries on and around the valley of the Nile above Egypt, up as far as Abyssinia. This name, as now applied, had no place in ancient geography, nor is it a native name, but evidently originated



APPROACH TO PHILÆ.

in Egypt, where the word *núb* or *nób*, signifying gold, lent an appellative at an early period to those countries whence the precious metal was derived.

55. It was under Dioclesian that the Romans, finding the rocky valley of the Nile above Egypt not worth the cost of defending from the restless Blemmyges (*bal-ne-moui*—lion-eyed), gave it up, to a distance of seven days' journey, to a colony of Nubæ or Nobatæ, or inhabitants of the gold region brought from the western desert. After some struggles with the Blemmyges, the Nobatæ obtained the upper hand on the Nile in the sixth century, and the spread of Christianity among them aided their progress. In the following century, therefore, the Arab conquerors of Egypt found a nation of Nubæ on the Nile. This was the original Nubia, a name subsequently extended, without regard to race or government, to all the Christian states on the river up to the wild country.

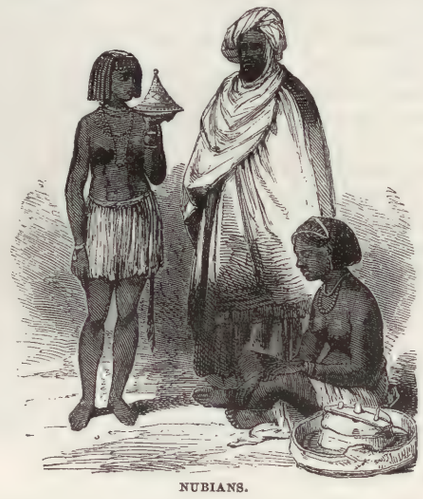
56. This wide and indiscriminate application of the name has been revived of late years, and all the countries in the south subjugated by the Turco-Egyptians are now collectively called Nubia; and hence in this sense it comprehends:

1. Nubia Proper, or the Valley of the Nile, actually peopled by Nubæ, extending from Egypt to the southern bounds of Dongola. Area 254,787 square miles.

2. Dar Atbara—the ancient Meröe, the modern capital of which is Shendi, and the domain of which may be considered as extending along the Nile from Dongola to the confluence of Blue and White rivers; and

3. Sennar, farther up. To this last seems to be annexed Kordofan on the west, and Taka, east of the Atbara. The joint area of Meröe and Sennar is 144,606 square miles.

57. NUBIA PROPER extends through 6° of latitude, from Philæ to the south limit of Dongola (18° north), nearly 600 miles, perhaps along the river. The first portion of it, the Wady-el-Kenus, reaches up about 70 miles; and then follows Wady-Nuba to the second cataract. The average width of this part of the valley does not exceed a quarter of a mile. It presents to view a glaring reddish desert, studded with pointed black rocks, and with narrow strips of green, and palm-trees along the river. Above the second or great cataract of Wady-Halfah, which is in fact a succession of distinct falls, the Batu-el-Hajár (or Glen of Rocks) reaches up about fifty miles. Here there is scarcely a trace of vegetation. To this follows Sukkot, where the valley opens, and repulsive sterility begins to disappear. The date-fruit here attains its greatest perfection. Mahas succeeds, and then comes the fertile level of Dongola, where the river forms several large islands, that of Argo being 30 miles in length.



NUBIANS.

58. Remains of ancient edifices occur throughout this whole extent, but chiefly below

Dongola. The most remarkable are the temple of Kelabshi (*anc.* Talmis), the sculptures of which represent the expedition of Sesostris; that of Dakka, the excavated temple of Ipsamboul, a little below Wady-Halfah, and the temple of Semné a little above it. In Dongola some colossal figures of granite lie prostrate in the isle of Argo.

59. The inhabitants throughout speak, in various dialects, a language fundamentally the same, and which radically agrees with that of Kordofan. They are a handsome race, of a dark-brown complexion, bold, frank, and cheerful, and more simple and uncorrupt in manners than their neighbors, either up or down the river. In Egypt, where they are called Berbers, they are preferred as porters or domestic servants. The chief town in Lower Nubia is Derri, a large village of 200 huts. The new capital, Dongola or Maraka, contains 5,000 or 6,000 inhabitants. The whole population of Nubia Proper does not probably exceed 150,000 souls.

60. Dar Atbara or Meröe is the name given to that insular tract of country lying between the Atbara and Nile, and anciently of great celebrity. Its dominion, however, is of wider extent. Its capital is Shendi, a town on the Nile, in latitude 16° 38′ north, and longitude 33° 15′ east. Previous to the conquest of these countries by the Turco-Egyptians in 1821–22, Shendi was the residence of the Wed-Agib or Woled-Ajib, the dynasty which had long divided with the rulers of Sennar the supreme control of the Ethiopian plain. It is on the road from Sennar and the gold countries in the south to Egypt, and also on that from Kordofan and Darfur to Suakim on the Red Sea. Nearly all the caravans of the country pass through it; and hence before the Turkish conquest we find it to have been a populous town with 1,000 houses. It is now much decayed.

61. The natural limits on the south between Wed-Ajib and Sennar are formed by the granite mountain chain of Ghirre or Guerri, below which is the passage from the desert of Bahr-el-Ada and the east bank of the Nile. From these heights a lateral ridge of moderate elevation proceeds northeast at a little distance from the river, and ramifying, incloses some spacious hollows, which, under the influence of the occasional rain, are extremely fertile. By means of water-wheels and artificial irrigation, they might be rendered very productive, and thus we see explained the existence of ancient cities, the ruins of which are now in the desert at a considerable distance from the river. The chief of these are the ruins of Meröe, in latitude 17° 8′ north, near the village of Bejrawich, northeast of which is an extensive plain covered with pyramids. Other ruins (pyramids, temples, tombs, etc.) are situated at Es Sofra and Naga, respectively nine miles and seventy miles southwest of Shendi.—These remains are hardly anterior to the Christian era, and the chief structures seem all to have been erected by a queen named Kandake. The chief tribes in the island of Meröe are the Shekorieh (who have some villages on the Atbara), the Jahlin, and the Kowalah.



ANTIQUITIES.

62. Sennar lies between the parallels 11° and 16° north. In latitude 14° 37′ is situate the junction of the two great arms of the Nile, the Bahr-el-Azrek and the Bahr-el-Abiad, the tract between these increasing southward to a width of two or three days' journey (50 or 60 miles) is called by the Arabs the island of Sennar, but by the natives Hûi. The towns and villages lie chiefly along the banks of the former, or Blue Nile, and are tolerably numerous from the 13th parallel downward for 200 miles. From that limit, or perhaps in some places a little farther south, the island is all nominally subject to Sennar. East of the Blue Nile this dominion reaches to the forests which encircle Abyssinia. On the west side of the island is a wilderness, the only permanently inhabited place on the White Nile being Al-leis, a poor hamlet at the ferry on the road to Kordofan; and lower down Manjera, a Turkish station for hewing timber and building boats. The authority maintained over the wandering Arab or Ethiopic tribes is a matter rather of might than right, and depends less on prescription or convention than on the actual power and vigor of the government. The Turco-Egyptians, whose head-quarters are at Khartum, at the north point of the island, have exacted submission from the tribes of Taka, east of the Atbara, and also hold in subjection Kordofan in the west, where they keep a strong garrison in the chief town, El Obeid.

63. Sennar is collectively a great level plain, from which masses of rock protrude only at wide intervals, and at no great elevation. West of the town of Sennar, however, about 10 or 12 hours distant, are the mountains Moia, Mandera, and Segadi, apparently extending as a chain north and south, but in reality disconnected. Granite is the prevailing rock. Jebel Moia, the largest and loftiest of these hills, may have an elevation of 1,200 feet above the plain, and a length of some miles. Baboons are the only inhabitants of the bare rocks; apes, parrots, and guinea-fowl tenant the woods at their feet. The ebony-tree grows round Moia, and the sycamore round Segadi. Above Khartum the plain exhibits only a sandy soil, apparently mixed with deposits from the river; but from Messelemiah up, its character changes entirely; and the level flat, now higher above the river, which has contributed nothing toward its formation, becomes a deep bed of argillaceous marl, containing calcareous concretions in great quantity.

64. Wild animals are not numerous; the elephant and rhinoceros keep to the woody fastnesses of the Abyssinian frontier, or to the woody forests of the south. The hippopotamus and crocodile, however, are very numerous; the marafin or hyena enters the villages by night and devours the dead, and the heron sits on the roof of every house. Apes and parrots give life to the woods, and wherever rocks rise above the plains they are peopled by baboons. The "cynocephalus," the ape deified by the ancient Egyptians, is still found; and here also dwells the "ibis," which in summer migrates to the north. Venomous insects and mosquitoes are exceedingly troublesome. Domestic animals are the horse, ass, and camel; the cattle are small, and the sheep tall and without wool.

65. The population of Sennar is of a very mixed character, and as yet no traveler has succeeded in pointing distinctly the aboriginal race. Six classes are commonly and readily distinguished—the Assari (yellow), of Arab origin; the Hamar (red), mulattoes, one remove from the former; the Azrek (blue), darker than the Hamar, and including the people called Funge; the Akhdar (green), and the Elkat Fatelolu, both very dark; and the Soodan (black), or Nubah unmixed negroes. In this enumeration the existence of a once dominant white race, distinct from the Arabs, seems to be wholly lost sight of, and yet it can not be thought doubtful; and hence we may conclude that they have been lost in the darker and degraded tribes. The pastoral tribes of the island are the Aelt and Haraza (perhaps Khereza); on the right bank of the Nile are the Jahlin, the Kawalah, the Refoa, and the Dobena.

66. The town of Sennar (latitude 13° 34′ north, and longitude 33° 30′ east), which would appear to have been large and well built, now lies for the most part reduced to ruins, and its population has fallen from 30,000 to perhaps less than 4,000. The king's palace, of well-burned brick, has nearly all fallen to the ground, and has contributed materials for the Turkish governor's palace. The site is dreary in the extreme, and represents successively a parched desert, a quagmire, and a field of durra, according to season. The only agreeable object near is a lemon grove planted by an opulent merchant in the last century. The villages below Sennar are still numerous, though generally of mean construction. The most important are—Dekin, the ancient capital, about 24 miles below the city; Wad Medineh (14° 25′), now nearly as large as Sennar; Messelemiah, 20 miles lower down, the chief market and place of trade on the river; and Kalamin, where some manufactories have been established by the Egyptian government.

67. The popular traditions of Sennar represent that country as the original seat of the Macrobii, whom Herodotus mentions as the most remote of the Ethiopians, and as a people whose gold provoked the cupidity of Cambyses. The same historian also speaks elsewhere of the Automoli (emigrants) or Egyptian soldiers, who, deserting Psammeticus, marched south and settled above Meröe. The Egyptian settlement seems to have risen superior to Meröe, and to its influence may be traced those imitations of Egyptian art, all of comparatively recent date, which are now scattered over the plains of the latter country. As Christianity spread up the Nile, it was soon received by this people, and in the tenth century the most flourishing state in Ethiopia was the Christian kingdom of Alwa, on the Blue River, with Soba for its capital. The precise date of the foundation of Sennar is not known. Khartum was built by the Turks, who maintain here about 4,000 men. Their oppression and rapacity have extinguished native industry, and the people have emigrated in such numbers as to leave the once so populous banks of the river comparatively desolate.

3. ABYSSINIA.

68. Abyssinia, the limits of which are not well defined, may be generally stated as lying between latitudes 7° 20′ and 16° 40′ north, and longitudes 35° and 43° 20′ east; having Nubia on the north and west, the Red Sea and the Strait of Bab-el-mandeb on the east, and the unknown countries stretching to the Indian Ocean on the south. About 670 miles long by 540 miles in extreme width, it contains an approximate area of 246,000 square miles.

69. Formerly a kingdom, but now broken up into several independent states, it has no longer a separate political existence. The principal divisions at the present day are respectively Dankali, Adel, Tigré, Amhara, and Shoa. The last of these, Shoa, is the most important, and is rapidly emerging from its semi-barbarous state. These, with some extensive but little known tracts on the south and southeast, inhabited by the Galla tribes, and a great forest on the north, abounding in elephants, complete the occupation of the whole space embraced by the limits assigned to the country.

70. The more marked physical features of Abyssinia consist of a vast series of table-lands of various and often great elevation, and of numerous ranges of high and rugged mountains. Inclosed in these mountains are prodigious natural repositories of water, which, pouring down by the deep ravines which everywhere intercept them, impart extraordinary fertility to the plains and valleys below. The mountain scenery is thus on the most stupendous scale, including water-falls of prodigious height. Notwithstanding, however, the wild and rugged appearance of the country generally, it contains numerous valleys and plains of unequaled beauty, fertile beyond conception, and producing luxuriant vegetation. The most extensive is the plain of Dembea, emphatically called the granary of the country, where there reigns a perpetual spring.

71. The geological structure of the country presents a granite base, with a superstructure of sandstone, and occasionally limestone, schist, and breccia. Large tracts, also, are of ancient volcanic rocks, and throughout the southeast volcanic ridges are everywhere present. Throughout unnumbered centuries, however, there has been no volcanic action in this part of the world; neither the precious metals nor precious stones are found in Abyssinia, but iron, coal, sulphur, and salt abound. In some parts the salt incrustation is three feet thick; it is cut into long flat pieces by the natives and used as a medium of exchange. A few hot mineral springs are known and made use of in Efât and Giddem.

72. The rivers of Abyssinia are all affluents of the Nile. The Bahr-el-Azrek is one of the great branches of the same river; it rises under the name of Dedheza in the Galla country, about 90 miles west of Sokka, and joins the Bahr-el-Abiad, the chief branch of the Nile, at Khartum (latitude 14° 40′, and longitude 32° 49′). The next considerable river is the Tecazze, which has its rise in the mountains near latitude 11° 20′, and longitude 17° 40′. Its bottom is extremely narrow, compared with the rise of the river, and as its name implies, it rushes down with a mighty impetuosity. The Hawash is also a great river; it has its main source in Lake Zawaja at an elevation of 8,000 feet above the sea, and, skirting the kingdom of Shoa,

it pursues a north and east direction for 240 miles, and is ultimately lost in the sands or led off in canals by the natives. This river is the recipient of the waters which come from the east declivity of the table-land. The Abai is the principal tributary of the Bahr-el-Azrek. The Anazo, likewise a considerable river, crosses the country in an easterly direction toward the sea, which, however, it never reaches, sinking, like the Hawash, into the sand when within about 20 miles of the coast.

73. In the earlier part of their courses, while flowing over the level surfaces of the table-lands, the rivers of Abyssinia are little better than muddy brooks, which in the dry season almost disappear, but during the rains overflow their banks and inundate the plains. Breaking from this level, which they do by fissures in the rocky surface, they at once form cataracts of 80 or 100 feet, and then continue down a succession of falls and rapids, so as to descend several thousand feet in a comparatively few miles.

74. The principal lake of the country is Dembea, in Amhara, at a height of 6,000 feet, a beautiful sheet of water, 60 by 40 miles in extent, and containing a number of large and inhabited islands. It abounds in fish, and is much visited by hippopotami. Haik, the next largest lake, and also in Amhara, has a circuit of 45 miles. The other lakes of considerable extent are Ashangee, in Tigré, about 30 miles long by 15 miles broad; Zawaja, Lugh a Summa, etc., and the remarkable salt lake Assal.

75. Abyssinia, though situated within the tropics, has its climate greatly modified by its prevailing physical characteristics. In the valleys it is delightful, but on the mountains exceedingly cold. In other places, especially on the borders of the Red Sea, the heat is intense, and in the south this excessive heat is increased by hot simooms. The atmosphere of these districts is loaded with malaria. The rains, always accompanied by tempests, begin in June and continue till September, during which period they are so violent as to put a stop to out-door employments. The finest months of the year are those of December and January.

76. The vegetable productions, though various, are nearly those of the temperate zone. The principal grains are millet, barley, wheat, maize, and teff. The wheat is of the finest description. Teff (*poa Abyssinica*), a very small seed, is a favorite with all Abyssinians. Two crops are obtained yearly, the seed being sown in one field, while the crop is being gathered in the next, and in localities there are three harvests. Legumes are also extensively grown, and the vine is cultivated. Flax and cotton, coffee and sugar, are also cultivated. The woods produce excellent timber, and the sycamore grows to a vast size. Among the native growths the acacia is also conspicuous.

77. Mules, camels, and asses are the usual beasts of burden, horses being generally reserved for war and the chase. Cattle and goats are of small size. Vast herds of oxen, often amounting to many thousands, are met with throughout the country. The wild animals are the lion, elephant, hippopotamus, rhinoceros, crocodile, buffalo, hyena, leopard, boar, antelope, zebra, quagga, giraffe, and gazelle. Among the smaller animals are apes and monkeys, rabbits, squirrels, polecats, otters, etc. Serpents are numerous, and some of them of great size, and the boa often attains the length of 20 feet. The varieties of birds are also great, and include the vulture, eagle, raven, parrot, heron, guinea-fowl, partridge, etc., and various kinds of water-fowl are met with on the lakes and swamps. Bees are numerous, honey being a general article of food, and locusts often lay the land waste, while the saltsaya, a fly a little larger than the bee, causes whole tribes to change their residence through terror of its sting, of which even the lion, it is said, stands in dread.



ABYSSINIAN CHIEF AND SOLDIERS.

78. The population of Abyssinia is composed of various tribes — Arabs, Jews, Ethiopians, etc. The blacks are everywhere in a state of slavery. The Abyssinians generally are a profligate and sensual people, but are not without some redeeming qualities, of which charity to the poor and hospitality to the stranger are the most conspicuous. The Dankala or Galla tribes, however, who inhabit the south, are notorious for ferocity and cruelty. The religions of Abyssinia are Christianity (which became the national religion in the fourth century), Islamism, and Judaism. The Christians are divided into three hostile parties, all deeply sunk in superstition; nor do the Mohammedans entertain great zeal for the religion they profess. The Jews live chiefly in the neighborhood of Gondar and Shelga, and to the northwest of Lake Dembea. They are extremely ignorant, but are much more laborious than other Abyssinians. The spoken language of the country is the Amharic, which supplanted the original Geez tongue in the fourteenth century, and though spoken in a great variety of dialects, it is also the only one which has assumed a written form. Literature, however, has made but slender progress.

79. Considerable progress has been made in manufactures, and the Abyssinians excel in the tanning of skins. Axes, plow-shares, and spear-heads are made at several places, and sword-blades, knives, scissors, and razors at Gondar and Kiaratza, and large quantities of coarse cotton cloth are manufactured by the women, and also a finer kind, with red and blue borders, for the wealthier classes. Coarse woolen stuffs are also made, and in all parts of the country pottery is manufactured.

80. For more than a century Abyssinia has been in a state bordering on anarchy. A negus or emperor is the sovereign of the whole country, but his authority is only nominal. The governors of provinces, styled Ras, have usurped his authority in their several districts, and transmitted it to their children, and continual war is waged one against the other. In the fact that the emperors are created by the governor in possession of Gondar, and that no less than eight persons were lately living who had been emperors, a sufficient indication of the condition of the people may be gleamed.

81. Under such circumstances it is almost impossible to assign limits to political divisions, ever changing, and it is probable that a very few years will elapse without essential modifications. It will also be easily perceived that there can hardly be a place in the country which deserves to be called a town; and wherever the semblance of a town does exist, its existence depends almost wholly on the favor of the reigning chief. Thus the town of Antalo, in Tigré, under the energetic government of Ras Welled Selassé, had so much importance that in 1810 it contained 8,000 inhabitants; but since his death, in 1816, it has fallen to decay; and even Adowa, though a commercial place, is going to ruin. The town of Gondar alone, though greatly declined, retains any importance. The towns of Burrie, Yaush, and Yejubbi, in the peninsula of Albai, however, appear to be considerable places; and the kingdom of Shoa presents an exception to this general decline since the overthrow of the Empire. The capital is Ankobar, situated on the ascent of the table-land, 8,198 feet above the sea, and the population of which is from 8,000 to 10,000, exclusive of the king's household of more than 1,000 persons.

82. The depôts of the external commerce of the country are Massowa (15° 40′ north latitude), on the Red Sea, and Tajurra (11° 50′), built on an inlet of the Gulf of Aden. Neither of these towns, however, are within the proper limits of Abyssinia. The principal exports are slaves, musk, ivory, wax, coffee, tanned leather, and skins, honey, gold, etc. The imports are silks, cotton cloth, pepper, etc., from India by way of Mocha; and glass, pearls, hardware, carpets, etc., from Egypt by way of Jedda. Báso, a few miles from Yaush and Yejubbi, is the great mart of the country and residence of the principal merchants, who here exchange traffic weekly during the season, which lasts about eight months. From this point caravans penetrate to the principal interior towns.

83. Abyssinia, comprised in ancient Ethiopia, appears to have been the cradle of African civilization; but the early history of the people is merely traditional. They were converted to Christianity in the time of Constantine, and their first rulers seem to have possessed great influence. In the sixth century they conquered part of Yemen, in Arabia. The present inhabitants, however, preserve nothing of their former power; the Turks on the one hand, and the ferocious Gallas on the other, having almost entirely separated them from other nations. The kingdom is divided up, and though the form is still retained of placing the crown upon the brows of a descendent of the ancient line of Solomon, the wearer is a mere puppet in the hands of others, and is content to exist on a miserable pension of $300 a year, with some paltry revenues. The population of the country is estimated at 2,500,000 to 3,000,000.

[*Weights, Measures, and Moneys.*—The denominations and values of Egypt and Nubia are identical; in Abyssinia the values are different.

WEIGHTS.—In Egypt, the "rutl" or rottolo of 12 oockeyeh or vakias and 144 dirhems or drachms = 400.43 grammes or 0.94903 lb. avoirdupois; 100 rutl = 36 oockckal or okka = 1 chuntur or cantar. The Abyssinian "rutl" = 311.03 grammes or 0.68578 lb. avoirdupois.

MEASURES.—The "derah" or cubit = 574.9 millimetres or 22.64 inches; 4 derahs = 1 gasab. The Turkish pik is used for measuring cloth. The "feddan-al-risach" = 400 square gasabs. The "ardeb" (corn) of 6 waybahs or 24 roobas = 175.8 litres or 4.98904 bushels. In Abyssinia the Turkish pik is used; the "kuba" (liquid) = 1.016 litre or 0.26842 gallon. The "ardeb" (corn) varies, being at Gondar about 0.11465 bushel, and at Massouah 0.33333 bushel.

MONEYS.—The integer of money in Egypt is the ckirsh or piaster of 40 fuddahs or parahs: 500 ckirsh = 1 kees or purse, and 1,000 kees = 1 khuzneh or treasury. The coinage consists of—*gold:* pieces of 5, 10, 20, 50, and 100 ckirsh, which are minted at 875 fine, and the last named piece weighs 133 grains Troy, and hence = $5.01163;—*silver:* pieces of 1, 5, 10, and 20 ckirsh, and of 10 and 20 fuddahs, which are minted at 833 fine, and the ckirsh weighs 21.66 grains Troy, and hence = $0.04861; and—*copper:* pieces of 1, 2, 3, and 5 fuddahs. The rial or 20 ckirsh piece = 1 Austrian specie-thaler. In exchange, 100 ckirsh = 1 £ sterling. The sequin formerly coined in Egypt was equal to the zecchino of Venice, but in latter times it had been so reduced in weight and fineness as to be current at less than two fifths of its original value. In Abyssinia there are no native coins; accounts are stated in "vakias," representing such a weight of fine gold, and in commerce reckoned at 11 Spanish dollars.]

NORTHERN AFRICA—BARBARY STATES.

1. EMPIRE OF MOROCCO.

1. Morocco is situated between latitudes 28° 20′ and 35° 53′ north, and longitudes 1° 30′ 11° 40′ west; and is bounded on the north by the Straits of Gibraltar and the Mediterranean Sea, on the east by Algeria, on the southeast and south by the Great Desert, and on the west and northwest by the Atlantic Ocean. Measured diagonally, northeast and southwest, the extent of the country is about 680 miles; the breadth varies considerably, and nowhere exceeds 320 miles, and in some parts is not more than a hundred miles. The area is computed at 222,560 square miles.

2. The country is traversed diagonally northeast and southwest throughout its whole extent by the mountain chain of the Atlas, and, physically considered, falls naturally into four regions: 1. The great range of Atlas, from southwest to northeast, composed of two or more parallel chains. Where this range meets the desert of Angad, in the northeast, a natural frontier is formed, which is continued to the sea-shore, along the valley of the Muluia. 2. Er-Rif, or the northern maritime district, comprising the chains of mountains which rise at no great distance from the Mediterranean Sea. This region is connected with the former by an elevated tract of country west of the Muluia. 3. The wide belt of fertile plain, intermixed with gentle hill and valley, which lies between the two preceding regions, and extends from the Muluia to Mogadore, a distance of 450 miles. 4. The plains and valleys southeast of Atlas. These last all terminate in or adjoin the Desert, through which the French, in affecting

to fix the boundaries of their Algerian possessions, have ventured to assign also those of the neighboring Empire of Morocco. But in the Sahara or Desert the landmarks of empire have little stability, and, of the whole extent assigned to the Empire, considerably less than one half is in reality subordinate, or pays contributions. And here, it may be observed, that Ceuta (ancient Sebta), on the north coast, at the Strait of Gibraltar, is still in the hands of Spain.

3. The most remarkable natural feature of the country is the great chain of mountains extending through it from northeast to southwest. This chain—the great Atlas—composed indeed of several parallel chains, contains the most elevated points known in north Africa. Miltsin, a peak distant about 30 miles south-southeast from the city of Morocco, has an absolute height of 11,500 feet, thus equaling the highest of the Pyrenees, and falling but little short of the limits in this latitude (31°) of perpetual snow. The termination of the Atlas, on the west coast, is at Cape Aguer, or rather Ighir, latitude 30° 37′ 30″ north. Adjoining the central chain are several table-lands of great extent, consisting of irregular plains; and, at a little distance from it, north, extends the maritime chain now called Er-Rif, and formerly the Atlas Minor. Its general height is from 2,500 to 3,500 feet. Of the inferior chains which run parallel with the Atlas in the desert in the southeast, there is little known; but there is no good ground for supposing that they attain a considerable magnitude.

4. The height of these mountains, and the general uniformity of their slope on both sides, procure for Morocco the distinction of having the largest rivers of all north Africa. Of these, the rivers flowing from the north side of the Atlas have the shorter course, but are well supplied with water; those running south, whether circuitously into the sea, or into the sands of the desert, extend much farther, but are dry in summer. The Muluia or Muloia, rising in a principal knot of the Atlas, nearly in latitude 32° 30′ north, flows northeast to the Mediterranean with a course of 350 miles; and its valley forms, in the maritime district, the boundary between Morocco and Algeria. The Sebu descends from Mount Sililgo west to the Atlantic in a course of 200 miles. The rapidity of its course, and the sand-banks at its mouth, seem to indicate that it can never be rendered navigable. The Ommerrebieh (mother of verdure), which enters the sea at Azamor, latitude 33° 17′ north, has a course of about 190 miles. The Tensift, which passes near the city of Morocco, has a length of about 180 miles. It is a large and full river, yet fordable in many places. Near the capital it is crossed by a bridge of 27 arches, which may be reckoned among the handsomest structures in Africa. Of the rivers which run into the desert, the most eastern, the Guir, seems to have a course south-southeast, occasionally traceable for 300 or 400 miles. The Ziz, which with its numerous affluents waters a very fertile and populous country, is wholly spent before it attains half that length. The Daraa, which rises in the central and most elevated portion of the range of Atlas (latitude 31° to 32° north), first runs south for nearly 200 miles, forms a vast lake (Ed-Debaia), and then, turning west, enters the ocean in latitude 28° 18′ north, after a course of 700 miles; the lower portion of its bed, however, is periodically quite dry.

5. The coast, being generally low and little broken, offers few good harbors; of these, Tangier and Mogadore or Sweira are the best; the rest, as El-Araish, Sla or Salee, and Rabat, Mehedia, Azamor, etc., are but open roadsteads at the mouths of rivers. Sibkas or shallow pools, which the hot season converts into salt pans, are numerous along the coast.

6. Respecting the geology of this remarkable region there is scarcely anything known. Though the summits of Atlas often rise into peaks, they never exhibit needles or jagged outlines, with acute angles; their scenery is characterized rather by rounded heights clothed with luxuriant forests, than by rugged and precipitous forms. It is vaguely stated that gneiss is the prevalent rock in the main chain of Atlas, and that on it rest transition limestone and sandstone. The soil, washed down in abundance from the hills, bears no trace of volcanic substances. A broad tract of low land, along the shores of the Atlantic, consists wholly of sand and gravel, and appears to have been formed by the sea.

7. Of mineral treasures, the richest and best known are the copper ores, which are found chiefly in the southern ramification of Atlas, between the rivers Sus and Tesset. The mines are wrought most actively near Tedsi and Ofran, and the produce is brought for sale to the market of Terodant. There are reports, also, of iron mines in the interior, and of lead found in the vicinity of Temsna. The khol or ore of antimony used by Moorish ladies for darkening the eyebrows, is obtained from Tedla. Amethysts of great size and beauty have been found in the recesses of the mountains.

8. The climate, west of Atlas, is in general much more temperate than might be expected under such low latitudes. This is due to the circumstance that a lofty chain of mountains, covered in some parts with perpetual snow, intercepts the hot winds from the deserts of the interior, so that the equable and refreshing sea-breezes prevail throughout the year. Hence the extremes of temperature lie within moderate limits, the thermometer, in the plains, rarely falling below 40° Fahr. in the winter; while, even in Terodant, the chief town of Sus, it does not rise above 95° in summer. The mean annual temperature of the city of Morocco, at an absolute elevation of 1,384 feet, is about 64°, which may be assumed, with probability, as the mean of the whole country west of Atlas. In the region east of the mountains, the difference between the extreme temperatures increases rapidly with the distance from the sea, and intense cold, often assumed erroneously as a proof of great elevation, is felt in winter; while in summer the heat of the plains is insufferable. In respect of salubrity, Morocco is highly favored, being quite free from endemic diseases.

9. With a genial climate and generally fertile soil, Morocco might easily become, under an enlightened government, one of the most productive countries in the world. Of its flora there is as yet but little known. The forests of Er-Rif contain, among other species of oak, that which bears edible acorns, and also that which yields cork. In the higher regions of Atlas are found the Aleppo pine, the cedar of Lebanon, many varieties of oxycedrus and of juniper, yielding fragrant gums. The palm forms extensive woods east and south of Atlas. In the maritime region grows the *eleodendron argan*, from the olive-like fruit of which is extracted an excellent oil, called *argan*, consumed in large quantities in the country. Among the wild plants of the southern provinces may be mentioned the caper and archil, the latter of which, in particular, supplies an important article of commerce.

10. The lion still haunts the plains on the sides of Atlas, particularly near the springs, followed by panthers and ounces. The wild boar inhabits the woods, and is seldom chased. Gazelles, and several species of large antelope, especially the bubalus, enter the country from the desert. Of pachydermata—elephants, rhinoceroses, etc., which, according to ancient writers, at one time tenanted those western forests—there is now no trace. More formidable by far, however, than beasts of prey, is the locust, which, coming from the desert, makes its appearance in Morocco in May, when it lays its eggs. The young brood come forth a month later in countless multitudes, and in another month they take wing, consuming all vegetation in their progress, spreading desolation over the fields, and terrifying the people with the threat of pestilence and famine. They are eaten in large quantities. The ostrich is chased on the southern frontiers of Morocco, and the ostrich feathers brought from that quarter are the best known in commerce.

11. The Berbers may be regarded as the oldest inhabitants of the country; they are divided into Amazig and Shelluh, of whom the latter, inhabiting the recesses and high plains of Atlas, south of the capital, seem to retain traces of a somewhat advanced civilization. They devote themselves to agriculture rather than to pastoral pursuits, and, though habitually peaceful, are distinguished also for their courage and resolution. The Amazig inhabit the mountains of Er-Rif and parts of Atlas. The Arabs form the bulk of the rural population in the plains; some of them are cultivators, the poorest and most oppressed portion of the population; some are Bedouins; most of them entered the country with the victorious successors of Mohammed; while others claim Hamyaritic descent, and a much more ancient settlement. In the towns along the coast we find the Moors, a people now physically distinct, but whose origin, as a distinct race, can not be satisfactorily explained. Jews are to be found in all the commercial towns, and are the sole dealers in bullion and holders of capital. But, in the interior also, among the Berbers in the valleys of Atlas, there are many villages and communities of Jews. To these various ingredients of a checkered population must be added the negroes and their posterity of every shade.

12. The country, as before stated, is traversed by the chain of the Atlas. On the northwest side are the territories of Fez and Morocco, and on the opposite side the principalities of Tafilelt, Daraa, El-Harish, Adrar, Gezulah, Sus, and Tesset or Sus-el-Aksa, *i. e.*, the extreme or farthest limit. The division of the Empire into provinces is usually represented as follows:

1. Provinces of Fez.—Fez, Temsna, Shawia, Beni-Hassan, El Gharb Hiaina, Er-Rif, Gart, Shous, Angad.

2. Provinces of Morocco.—Tedla, Zerara, Dukalla, Abda, Shedma, Haha, Erramna, Shragua, Ascura, Sus-el-Adna.

3. External Provinces.—Sus-el-Aksa and Daraa on the south, and Tafilelt on the east borders.

But at the present day there is no trace of this division. The division best known is that derived from the occupying tribes, and another is that of the Ammala or district, now 30 in number, but fluctuating and very unequal, sometimes confined to a single town, sometimes embracing an extensive territory, administered each by a kaïd, whose chief duty it is to collect the imposts.

13. For an estimation of the population of Morocco there are no certain data whatever. Jackson assumes it to be 15,000,000; Graberg de Hemso, 8,500,000; but in every particular instance where the estimates of these writers can be subjected to scrutiny they are found to be far in excess. There is reason to believe that the population of Morocco is about treble that of Algeria; whence we may conclude that it is between 5,000,000 and 8,000,000, and probably does not much exceed 6,000,000.

14. Agriculture is in the lowest possible condition. The soil is but rudely scratched with a wooden plow; neither science nor capital aid the labors of the husbandman; and the annual production is calculated barely to supply the wants of the country. The cereal crops are wheat, barley, and maize. But durrah or millet (*sorghum vulgare*) constitutes the chief support of the population. The vine is cultivated only near the towns. Among the aromatic and medicinal productions must be mentioned saffron, cardamum, pimento, anise-seed, cumin, coriander, and colocynth.

15. The wealth of the Arab tribes which are scattered over Morocco consist chiefly in their droves, herds, and flocks. In the interior and southern districts the flesh of the camel is generally eaten. The spirited small horses, for which this country was famous in ancient times, are still numerous; as are also horned cattle, particularly in the northern districts. Still more important are the sheep, supposed to number at least 45,000,000. The native variety is much larger than the European sheep, and has a broad tail, loaded with fat, and often weighing, in a well-conditioned animal, 50 lbs. The wool is frequently of the finest possible description. The goats are estimated at 10,000,000 or 12,000,000, and furnish a principal article of export—the well-known Tafilelt, Saffian, or Morocco leather.

16. In general, among the rural population, each family supplies all its own wants. Every woman spins, and every man knows how to weave the coarse cloth which forms his haik or mantle. In the towns, however, some manufactures have sprung up. Fez makes and exports great quantities of the cloth caps which bear the name of that city, and which are much admired for their fine scarlet dye, obtained from a berry found in its vicinity. The tanners of Mequinez have a great reputation, though surpassed in some respects by those of Morocco, who can render the lion's or panther's skin as white as snow and as soft as silk, This is done by means of two plants, the tizra and tesaya, natives of Atlas, and unknown to Europeans. Of the fine Morocco leather, Fez furnishes the red, Tafilelt the green, and the city of Morocco the yellow. The Morocco carpets, called by the Moors sherbiah and katifah, and much esteemed in Europe under the name of Turkey carpets, are made chiefly in the province of Ducalla. The Jews alone do business as goldsmiths and jewelers.

17. The commerce of Morocco may be conveniently considered under three heads: 1. Commerce with the East, carried on by means of the caravans to Mecca, which have at once a mercantile and a religious character. 2. With Soudan or Negroland, across the Great Desert. 3. The maritime trade with European states. The pilgrims and merchants who mean to join the Haj caravan, assemble in Fez seven months before the time of the festival in Mecca. The caravan proceeds first to Teza, and thence, holding an inland course, to Kairwan. Its mercantile followers, however, contrive to visit Algiers, Tunis, and the other chief towns near its route. Halting for some time at Tripoli and Alexandria, they at length reach Mecca, where, at the time of the Haj, there is a fair lasting five months, and perhaps, in some respects, the greatest in the world, as it sometimes brings together 200,000 men and above

100,000 camels from all parts of the Mohammedan world. Here they buy Persian silks, perfumes, spices, and some Indian goods; to which are afterward added cotton and raw silk in Cairo. The goods exported by this eastward channel are cochineal, indigo, skins, fine leather, woolen cloths, and ostrich feathers. There is also much business in buying and selling done at the towns passed through on the march.

18. The caravans for the interior assemble at Tafilelt, whence they proceed to Akka or Tatta, on the borders of the desert. Though the caravans going south are much less numerous than those destined for Egypt or Mecca, yet they often reckon from 16,000 to 20,000 camels, and 500 or 600 men. They halt in the desert at Taudeini or at Arawau to procure salt, and then advance to Timbuctoo, where they meet the merchants from the south, and dispose of their goods, chiefly salt, woolen mantles, sashes, Turkish daggers, tobacco, and looking-glasses, for ivory, rhinoceros horn, incense, gold dust, ostrich feathers, gums, malaghetta or Guinea pepper, cardamum, assafœtida, indigo, and slaves. This traffic yields them a great profit.

19. Of the seaward commerce with Christian states, two thirds in amount are carried on with Great Britain. The principal articles of exports are dates, almonds, oils, skins, leather, wool, etc.

20. The sovereign or sultan of Morocco bears the title of Emir-el-Mumenin or lord of the true believers. He is ordinarily called by his subjects simply "Seïd-na"—our Lord. He is absolute in the strictest sense; the lives and properties of his subjects are at his disposal; from him alone proceed the laws, which he makes and unmakes at his pleasure. The imperial revenues are derived from arbitrary imposts on property, from duties on imports and exports, from monopolies, and from fines or confiscations. The sultan's treasury, called the beït-el-mell (house of the funds), is in Mequinez, a mysterious and impenetrable structure, guarded by 2,000 blacks. It is supposed to contain money, jewels, and bullion to the value of $50,000,000. It was formerly customary to put to death immediately the persons employed to deposit treasures within its walls. The military force maintained by the sultan does not ordinarily exceed 16,000, of whom half are blacks, and of the remainder a large portion are Bedouins from the southern desert. The marine force is insignificant.

21. The civilization of Morocco is in a low and fallen condition. The education given at the schools in the chief towns, and completed at the university of Fez, entitled Dar-el-Ilm (the abode of knowledge), does not go beyond the theology of the Koran. The public libraries, once famous, are now dispersed; true science is unknown, and whatever monuments of art are to be found in the Empire point to past ages, particularly to those when literature and art flourished under the Arabian dynasties in Spain. In the interior of the country, at present, there are extensive tracts without schools or even mosques, and the obstructions in the way of easy intercourse, arising from the jealousies and local feuds of different tribes, races, or secluded communities, prevent the natural development of civilization. Music is the only art for which the Moors are said to manifest a decided taste, but they have not as yet arrived at any proficiency in it.

22. Morocco (Marakash), capital of the Empire, is built on the north side of an extensive and fertile plain 1,500 feet high above sea-level, and is about six miles in circuit, surrounded by walls 30 feet high, and entered by 11 gates. The entire space within, however, is not generally covered with buildings, but comprises large gardens and open areas of from 20 to 30 acres. The streets are narrow and irregular, and the houses mostly constructed of tappia, flat roofed, the side to the street plain and white-washed, and the apartments fronting into a court. There are several open areas throughout the city used as market-places, and also a covered bazaar. There are 19 mosques in the city, of which six are remarkable for their size and architectural elegance. On the south of the city stands the palace, comprising a space of about 1,500 yards long by 600 yards wide, and near it is the Jews' quarter (El Millah), a walled inclosure of about a mile and a half in circuit, one half of it nearly in ruins, thronged to suffocation, and excessively filthy. There are the ruins of extensive aqueducts in the vicinity of the town, some of them 20 miles in length. There are also several large cemeteries outside the walls, one of which is upward of 100 acres in extent. Morocco has long been hastening to decay, and is now nearly half in ruins, the result of war, plague, and wretched government. The population is estimated at 100,000.

23. Fez, the second principal city of the Empire, is finely situate on the slope of several hills, the acclivities of which are covered with orange-groves, orchards, and gardens, 100 miles from the Atlantic, and 85 miles from the Mediterranean. Latitude 34° 6′ north, and longitude 5° 2′ west. It is surrounded by walls, now however much decayed, and the streets are narrow, dark, and dirty. There are, it is said, upward of 200 mosques in the city, many of which are truly gorgeous edifices, and that of Muley Edris, founder of Fez, is the most sacred sanctuary in all the country. The city is well supplied with water from the river Fez, and there are a great number of public baths. The manufactures consist of woolen cloaks, sashes, silk handkerchiefs, slippers, red caps, coarse linen, fine carpets, saddlery, copperware, etc. Fez, founded in 793, was capital of an independent state, and subsequently became so famous as a seat of Arabian learning, that its schools were resorted to not only by students from Mohammedan states, but even from Christian countries. These schools, though now decayed, still attract large numbers of scholars. The city is considered a holy town by the western Arabs, and contains a population scarcely inferior to that of Morocco.

24. Mequinez, 33 miles south-by-west of Fez, is a large and well-built city, and has a palace the finest in the Empire. Tetuan possesses the only good harbor on the Mediterranean. Tangier, to the east of Cape Spartel, and on the Strait of Gibraltar, has an active trade, and is the usual residence of foreign consuls. El Araish is a fortified sea-port on the Atlantic, 45 miles south of Tangier, and the site of a national dock-yard. Salee, at the mouth of the Regreb, is also a well-fortified town, and has manufactures of fine carpets, and an export trade in wool, etc. It was formerly a resort of pirates. Rabat, on the opposite side of the same town, also fortified, was formerly a chief entrepôt of the foreign trade with Morocco. Mogadore, however, is the principal commercial port on the Atlantic. It is strongly fortified and well built; but its port admits only of small vessels. It exports wool, gum, wax, skins, feathers, gold dust, etc., to the value of half a million dollars annually. Of interior towns there are no reliable accounts.

25. It is not likely that the Romans, occupying chiefly the sea-coasts of Mauritania (the northern portion of Morocco), interfered materially with the native population. The Vandals, who held the country for some years, at the end of the fifth and beginning of the sixth century, are supposed to have introduced into it the piratical habits which afterward became so characteristic of the coasts of Barbary and Morocco. The Vandals being expelled, Mauritania appears to have enjoyed tranquillity till the latter part of the seventh century, when the Arabs, fired by enthusiasm, spread over north Africa, and having taken possession of Mauritania, penetrated south, even to Sus and the borders of the desert. It was about this time that the Jews were expelled from Spain by decree of the Council of Toledo (A. D. 694), and sought refuge in great numbers on the shores of Africa.



TANGIER.

26. The victorious Arabs in Mauritania remained for a long time in a state of turbulent division, without any attempt at consolidating an empire. But near the close of the eighth century a sherif or descendant of Mohammed, named Edris, contrived to obtain such an ascendency over the Berber tribes in and about Atlas, that they made him their sovereign, with the title of Imam. His son and successor, of the same name, founded, in 807, the city of Fez, and established the dynasty of the Edrasites. The southern part of the country was, at this time, in the hands of independent chieftains.

27. It was in 1035 that the warlike sect of the Morabites first rose into existence among the Gezulah, and on the borders of the desert. In 1055 their chief, Abu Bekr ben Omar el-Lamtuni, was proclaimed, under the title of Emir. His residence was in Tafilelt; but his successor crossed the mountains, and in 1072 laid the foundations of the city of Morocco, which thus arose with this remarkable dynasty. These were succeeded by the Almo-Hadi, the Benu Merini, and the El-Watasi, who ruled, however, only a portion of the country, Fez, Morocco, Sus, and Tafilelt or Segelmesa forming in general so many independent states. In the time of El-Watas, the founder of the last-named dynasty (A. D. 1480–1501), the expulsion of the Moors and Jews from Spain added 800,000 souls, it is said, to the population of Morocco.

28. In the middle of the sixteenth century a new dynasty commenced with the descendants of the Sherif Hosein. The fifth of this family, commonly called Hamed Sherif el-Mansur (1579–1603), made himself master of the entire of Morocco, and pushed his conquests through the desert as far as Timbuctoo and Kagho. His reign is regarded as the golden age in the history of Morocco; but dividing his empire on his death-bed between his five sons, he prepared its speedy ruin.

29. The ninth and last dynasty is that founded in 1648 by Mulai Sherif el-Fileli, or king of Tafilelt, who was remarkable, among other things, for his numerous posterity, having 83 sons and 124 daughters. From him the present sultan of Morocco, Mulai Abd-ur-rahman, whose reign commenced in 1822, is the tenth in succession. His predecessor abolished, in 1814, the slavery of Christians throughout his dominions; and in 1817 he disarmed his marine, and strictly prohibited piracy.

2. PROVINCE OF ALGERIA.

30. ALGERIA lies between latitudes 34° 30′ and 37° 5′ north, and longitudes 1° 58′ and 8° 43′ east, and is bounded on the north by the Mediterranean Sea, on the east by the Regency of Tunis, on the south by the Great Desert, and on the west by the Empire of Morocco. The greatest length of the country, east and west, is about 540 miles, and its greatest breadth from 140 to 150 miles. The area is stated at 214,834 square miles.



THE GRAND MOSQUE, ALGIERS.

31. Algeria is mountainous, consisting principally of the ridges or slopes of Mount Atlas, which ramify throughout its territory, inclosing several plains and valleys, sloping toward the Mediterranean Sea. The principal of these are the Wanashrees, in the province of Oran, and the Jurjura, southeast of Algiers, both of which are capped with snow in winter; the chain of the lesser Atlas, which terminates west of Bona, being the extreme slope of the last longitudinal terrace of the northern Atlas. A few peaks of the greater Atlas rise between 9,000 and 10,000 feet, whereas only one peak in the lesser Atlas attains a height of 4,500 feet.

32. Several low plains lie between the lesser Atlas and the coast, the longest being that of Blida or Metidjah, south of Algiers; it is nearly 44 miles long and 16 broad, and rises toward

the Atlas range from a sandy flat covered with grass and brushwood to the beautiful green slopes of the mountains, diversified by meadows, fields, and woods, closely resembling the scenery of Europe. Southwest of Oran is a sandy plain, which becomes a kind of salt marsh in winter. In the southern province are some rich level tracts, watered by the Hamma or Hamsa.

33. The coast-line, which is about 500 miles in length, consists nearly of an uninterrupted succession of cliffs. The zone or strip of cultivated land lying between the mountains and the sea is called the Tell; it varies in breadth from 50 miles in the provinces of Oran and Titterie to 120 miles in the provinde of Constantina.

34. None of the rivers of Algeria, most of which flow into the Mediterranean, are navigable for any great distance above their embouchure. The country is everywhere intersected by water-courses which, although dry for a part of the year, bring down during the rains a quantity of water which floods and fertilizes the plains. These streams are divided by the Atlas range into those which flow north to the Mediterranean and those that run south and are lost in the lakes, swamps, or sands of the Sahara. One of the principal rivers is the Shelliff, which rises on the south of the Jebel Wanashrees, from a number of sources called "The Seventy Fountains," and, flowing first east and then north, in the course of which it forms the lake and swamp of Titterie, falls into the Mediterranean 80 miles northeast of Oran. Another considerable stream is the Aduse, which receives during its course various other appellations, passes northeast along the south base of the Jebel Jurjura, and, after being joined by a pretty large affluent, called the Ajebby, about 15 miles from the sea, falls into the latter a little to the east of Cape Carbon. The other streams worth naming, that fall into the Mediterranean, are the Seibus, the Kibir, the Isser, and the Wedjer. There are besides various small rivers that discharge their waters into the swamp of Al-Shott; and the large united streams of the Adjedi and the Abiad are lost in the salt marsh of Melgig.

35. The primary formations, which are found chiefly on the ranges of Mount Atlas, comprise gneiss and micaceous schist, with smaller patches of granite. The secondary rocks consist of lias and calcareous beds, containing few organic remains; and those of the tertiary period are chiefly of a yellow-gray limestone or sand, and tertiary clay, inclosing beds of gypsum, iron, and salt. It had long been supposed that Algeria had no volcanic rocks; but travertine is found at Oran; and at Calle, as well as elsewhere, are distinct traces of ancient volcanoes. As regards mineral products, iron is most abundant, especially in the province of Oran. Copper is found also in considerable quantities; and there are rich lead mines in the Jebel Wanashrees, and near Mascara, which are said to yield 80 per cent. of pure metal. Cinnabar, also, is wrought in small quantities; and there are extensive quarries of niter, salt, talc, and potter's clay. Salt and thermal springs are numerous.

36. The climate of Algeria, on the table-lands of the lesser Atlas, is salubrious and temperate, being unhealthy only near the marshy plains, or on the coasts at the outlets of flooded valleys. The average annual temperature may be stated at 50° or 60° Fahr.; but during the hot season it frequently rises to 100°, and during the cool season it falls as low as 36°. The barometer varies but little amid all the changes of the weather; and the annual average fall of rain at Algiers may amount to 28 inches. The prevailing winds are north, varying from due north to northeast and northwest, which materially temper the character of the climate. At certain seasons the khamsin, or hot wind of the Sahara, blows for a few days in succession, considerably increasing the temperature, and even blighting vegetation. It also injures the human constitution, the dust with which it is charged producing ophthalmia. The Tell of Algeria, however, is greatly sheltered by the elevated ridge of the greater Atlas; and even the sandy Sahara contains many verdant spots, refreshed by the winter rains, and well-protected from the scorching blasts of the desert. The mild season begins in March and ends in June; the heats lasting from July to November, and the rains from December to February. At the base of the Atlas chain the trees are evergreen, except in December; and by February vegetation is in full vigor.

37. When duly irrigated, the soil of Algeria is as fertile as in the southern territories of Europe. Many of the hills are clothed with wood to the summit, the forests forming, indeed, a chief portion of the natural wealth of the country. The fig-tree, of which there are numerous varieties, is a native of the country, and in some districts is cultivated to a great extent. The pomegranate and jujube are abundant, and orange and lemon groves are very extensive. The carob or locust tree, is found wild on the hills; its wood is considered imperishable. Cherry trees are also met with in the wild state. The date palm is cultivated in the interior of the country only. The black mulberry and wild olive trees are the largest in the country, and the latter is among the most common, especially in the vicinity of Algiers. Vines are grown in several places, from the produce of which good wines are made.

38. The principal cereal crops are barley and red wheat; the former cut in May and the latter in June. A little rye is also cultivated. The sugar-cane has been tried, but without success, owing to the winter frosts. With indigo and cochineal the result has been more favorable. Tobacco has been tried, and with such success as to lead to the hope that it may become a staple article of produce. But one of the most useful vegetable productions of the country is the dwarf palm, which covers large districts. Its leaves are made into baskets, cords, fans, sacks, sleeping mats, etc., and the tender foot-stalks of the leaves and the young flowers form a principal article of food for the Arabs. The culinary vegetables comprise pease, beans, potatoes, artichokes, onions, carrots, lettuce, gourds, cucumbers, parsley, basilic, sweet savory, chervil, fennel, mint, marjoram, etc., all of which are in great demand. The French government has done much to improve the agriculture of the country, and early established a model garden, orchard, and nursery at Algiers, which has now several dependent establishments in other parts.

39. Besides the animals common to the opposite southern regions of Europe, the lion, leopard, jackal, and hyena are occasionally seen in the fastnesses of the upper Atlas. There are also antelopes, jerboas, etc., and a few monkeys; and, near the Sahara, vultures and ostriches are met with. There are some chameleons, and a few scorpions and serpents, but most of the latter are harmless. Locusts occasionally visit the country, and are sometimes destructive to the harvests. The coasts abound with fish, including fine tunny.

40. The indigenous population comprises Kabyles, Moors, Arabs, Turks, Koloughs, and Jews. The Kabyles (called also Berbers) form nearly a half of the whole; they inhabit the mountains lying toward the Desert of Sahara, where they live in small villages. They are athletic, well-formed, and possessed of great powers of endurance; but they are mostly robbers, cruel and faithless, yet practicing hospitality. Although ostensibly shepherds, they occupy themselves much in hunting. The mountain shepherds dwell in caves, like the ancient Troglodytes. The Berbers, however, are the most ancient inhabitants of north Africa.

41. The Moors are a bastard race, formed by the intermixture of various races, the majority of their ancestors being invaders, or immigrants from Morocco, or other regions of the west. Indeed, men even of Arab blood are sometimes called Moors, if dwelling in towns; while pure Arabs, on the other hand, who live in tents, are called Bedouins. The latter are tall and muscular, with spirited, handsome countenances, large, piercing black eyes, aquiline noses, regular white teeth, full, strong beards, and black hair. The complexion of the people northward is light brown; darkening southward, till at last it is black, though without the negro physiognomy, which first shows itself in Soudan.

42. The Arabs are a more or less nomadic race, dwelling in tents, in bodies of from 10 or 12 to 100 families, every family under a sheikh, who is at once priest, legislator, and judge. They constantly war, and in the most savage manner, either with the Berbers, each other, or the French, that being their regular business, and most of their income plunder. The Arabs are originally Asiatics, and have preserved their distinctive habits for perhaps 30 centuries; but it is probable that, at one period, they have greatly intermixed with the Berbers.

43. The Turks, during three centuries masters in the land, have dwindled to a handful since the French conquest. The Koloughs, or children of soldiers, are a mixed race, from Turkish men and Moorish women. There are likewise many Jews, especially in Algiers and Oran, and carrying on a considerable foreign trade. The nature of the religion of the Kabyles is nearly unknown; but Islamism is the creed of all the other native races, except the Jews. The general language of the country is Arabic, adulterated by foreign words, and others from the Berber or Kabyle dialect.

44. The country under the Turks was divided into the four provinces of Algiers, Oran, Constantina, and Titterie; but since 1843 the French have comprised it within the three of these first named. Algiers is subdivided into four departments, Oran into four, and Constantina into three; and these are again subdivided into cantons and communes. In 1857 the total population of Algeria was stated at 2,880,383, of which 167,670 were Europeans, or of European origin. The progress of the immigrant population since 1840, as will be seen from the following figures, has been rapid;

1840	28,736	1843	58,985	1846	108,219	1849	127,988	1852	137,981	1855	150,387
1841	35,870	1844	75,420	1847	120,119	1850	131,020	1853	141,222	1856	155,607
1842	46,100	1845	96,160	1848	126,016	1851	134,115	1854	147,616	1857	167,670

Of the European population, about 75,000 are resident in the province of Algiers; 60,000 in that of Oran, and 33,000 in that of Constantina; and of the whole, 100,000 are French, 45,000 Spanish, 8,000 Maltese, and 15,000 Italian, German, etc. The indigenous population living in towns numbers less than 100,000 souls.

45. Though agriculture is the staple industry of the people, there are several manufactures engaged in; but owing alike to the indolence and ignorance of the natives, the latter branch is exceedingly backward. The Jews take the higher branches of handicraft, as jewelry, watch-making, tailoring, etc.; the Arabs are employed principally as carpenters, tanners, etc.; the negroes are masons, bricklayers, and laborers; and the Kabyles manufacture gunpowder, and work in the iron, lead, and copper mines. Otherwise the chief manufactures comprise linen, woolen, and silk fabrics; saddlery, carpets, fire-arms, hardware goods, coarse pottery, etc. The textile fabrics are wholly made by the women, who are also employed in grinding corn.

46. The commerce of Algeria is important, and since the occupancy of the French has steadily increased. The imports are now valued at about $25,000,000, three fourths French, and the exports at about $5,000,000, one third French. Of the imports, the principal are cotton, woolen, and silk goods, grain and flour, lime and refined sugar; and of these upward of 80 per cent. are taken by the cities of Algiers, Oran, and Philippeville. The exports consist of rough coral, animal skins, wheat, olive oil, and wool, with small amounts of wax, leeches, bark, bones, horns, and dressed feathers. The trade is chiefly with France, Spain, and England.

47. The trade with the interior has been much interfered with by the hostile attitude of the native tribes, and also much hindered by the want of good roads; but lately, through the energy of the government, the former has been abated, and ample means of communication supplied. The consequence has been a gradual increase of mercantile transactions.

48. Algeria, which is divided into the three provinces of Algiers, Oran, and Constantina, was, before 1830, under a Turkish dey or pacha, of absolute authority, elected by and ruling over the army; but it is now under the supreme power of a governor-general, appointed by the French government; and under him are a secretary and intendant, the latter of whom is termed the director of Arabian affairs. The governor occupies also the post of commander-in-chief. There is likewise a council of management, composed of three members, the director of the interior, the naval commandant, military intendant, attorney-general, and director of finances, nominated by the government, who advise upon and confirm the acts of the governor-general. There is also a council (*Conseil des contentieux*), formed of a president and four other members, who take cognizance of minor criminal and civil offenses. All the civil provinces, besides, have their mayors, justices of peace, and commissaries of police. Justice is administered both by French and native courts, in the latter of which cadis and rabbis preside. The French tribunals are the supreme court of Algiers, which is both civil and criminal; and the local courts of Bona, Oran, Philippeville, and Constantina; and at Algiers is a tribunal of commerce. Very few cases are tried before the native judges.

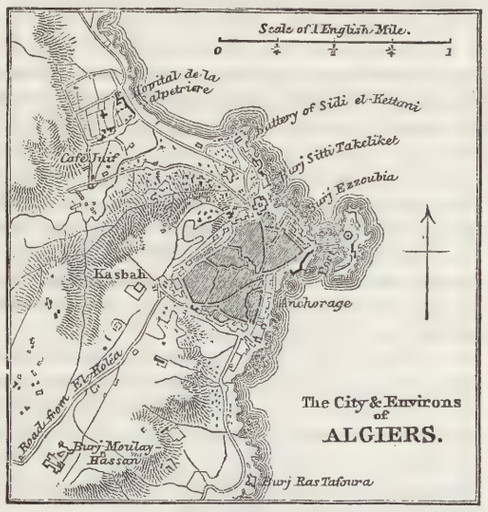
49. Under the Turks, the dey maintained a force of 10,000 infantry and 6,000 cavalry, which latter consisted chiefly of Arabs and Kabyles. The military force kept up by the French comprises about 100,000 men, one tenth of whom are natives; and the principal military posts are at Algiers, Bona, Calla, Guelma, Misserghin, and Masagram; besides which there are garrisons of French troops, to overawe the natives, in all the larger towns.

50. The religious establishments, as in France, are provided for by the government, each denomination receiving a *pro rata* support from the public treasury. The Roman Catholics are by far the most numerous of the immigrant class, and are under a bishop of that church. The Protestants have consistories at Algiers and Oran. But not only these, but also the

Moslems and Jews partake of the public bounty, and are in all civil and religious matters placed on the same footing as the Christians.

51. Public education is under an inspector approved by the French ministry. At Algiers there is a college with 15 professors, who give instructions in Arabic and French, as well as mathematics and practical science. Oran, Bona, Philippeville, and Bougia have also their respective high schools; and in all the leading towns are communal and primary schools. The ignorance of the natives, however, is deplorable; and hitherto, owing chiefly to religious prejudice, they have rejected all attempts to promote their mental improvement. Besides these there are at Algiers a theological seminary and a college for Arabs of high rank. Nuns, also, of several orders, have formed schools for the natives in various districts.

52. Algiers (Al-Jezira), the capital, is situated on the northwest side of a bay of the same name on the Mediterranean, in latitude 36° 47′ 3″ north, and longitude 3° 4′ 5″ east. It is built on the north slope of Mount Boujarin, which rises about 500 feet above the bay, and the houses, arranged amphitheatrically, terminate in the esplanade, on which stands the Kasbah, or old citadel. It is wholly inclosed by an embattled wall, 12 feet thick and 30 feet high, the strength of which is vastly increased by four castles and casemated batteries, and it is entered by five gates—two seaward, two landward, and one leading to the citadel.



53. The external aspect of the city is exceedingly imposing; but the streets, except the new thoroughfares, are narrow and tortuous. The houses, whether of brick or stone, are annually whitewashed, and are seldom of more than one story above the basement, each tenement being flat-roofed and provided with a rain tank; besides which Algiers has numerous fountains, supplying an abundance of water from aqueducts and reservoirs above the town. Among the public buildings and establishments are ten large mosques, a cathedral, six colleges, a government house, exchange, bank, four courts of justice, a bishop's palace, observatory, several hospitals, and extensive barracks; and Algiers is the residence of the governor-general and all the leading officers in the colony. There are, likewise, several handsome hotels, bazaars, and shops, and on the whole the European portion is creditable to its possessors.

54. The harbor is a work of immense labor, first formed by Barbarossa in 1530, having a mole 580 feet in length and 140 in width, extending from the mainland to an islet, on which are a strong castle with batteries and a light-house. The bay offers no safe anchorage, and is open to the northern surf; but a breakwater, which is to be 2,400 feet long when finished, will remedy this defect. In fine weather, however, there is anchorage in 20 fathoms water a mile from shore, and also during north and east winds on the northeast side of the bay in 11 fathoms water. The commerce of Algiers, which was wholly insignificant in the time of the regency, has risen to importance, and it has become the entrepôt of four fifths of the trade with France and other European countries. Government steamers, carrying the mails and emigrants, ply between Algiers and Toulon and Marseilles thrice a month; and steamers also frequently run between Algiers, Bona, Oran, Bougia, and Philippeville.

55. The trade carried on by the natives would be quite insignificant but for their connection with the French; the Jews, however, are pretty actively engaged in the retail trade, and carry on some of the higher handicrafts, and the natives manufacture a few silk and wool fabrics, saddlery, trinkets, etc.

56. Constantina, the ancient Cirta, stands on a high rocky peninsula, formed by the Rummel, 185 miles east-by-south from Algiers, and 45 miles due south from the Mediterranean. The city is surrounded by old walls and entered by four gates, the elegant structure and sculptured decorations of which prove them to be the work of the Romans. The interior has nothing remarkable. The streets are narrow and ill laid out, and the houses generally of brick or stone foundations with sloping roofs. The principal public buildings are a college, hospital, and the citadel; and the town has manufactories of saddlery, harness, and other leather goods, and trades in corn with Tunis, and in the products of central Africa with the tribes to the southward. The site abounds in ancient Roman remains, and the neighborhood is very fertile and well cultivated. In ancient times all the roads in Numidia converged upon Cirta, which originally occupied a much larger area than the present town. Philippeville, on the Gulf of Stora, is the port of Constantina.



CONSTANTINA.

57. Bona, on the west side of the Gulf of Bona, and 85 miles northeast of Constantina, is built at the foot of a hill and surrounded by a wall 30 feet high, and nearly two miles circuit, with four gates, and is further defended by a citadel at the top of the hill. The harbor is nearly choked up with mud, but the trade of the town is considerable, and its manufactures not unimportant. It exports corn, wool, hides, wax, and coral, being the seat of a fishery of the last. About a mile south of the town are the remains of Hippo-Regius, once a residence of the Numidian kings and the see of St. Augustine. To the eastward are La Calle and Bastion de France, two old French settlements, which are frequented by the coral fishers.

58. Oran, the capital of the province of the same name, and 212 miles west-southwest of Algiers, is a fortified town on the Mediterranean. Its harbor is very indifferent, but it carries on considerable trade and is rapidly increasing in importance. The Spaniards were masters of it for three centuries, until 1792, and also of Marsa-el-Kebir, the Portus-Magnus of the ancients, which, distant only three miles, is a natural harbor, one of the best on the coast of Barbary. Tlemcen, 65 miles southwest of Oran, is a manufacturing and trading town, and, from its vicinity to Morocco and the desert, the natural entrepôt of the caravans to and from Fez. Mascara and El-Callah are other interior towns of note in this direction.

59. This country, originally inhabited by the Moors and Numidians, was afterward under the power of the Romans and Vandals. In the sixteenth century it was invaded by Spain; but Barbarossa expelled the Spanish and founded, under the sovereignty of Turkey, the state of Algiers, which became redoubtable to Christians on account of its corsairs, and compelled many of the European states to pay tribute for the protection of their merchant vessels. Repeated attempts were made by the different European powers to subdue this nest of pirates, without effect, till 1816, when Algiers was bombarded by the British under Lord Exmouth, after which they continued comparatively quiet until 1827, when the French government, to revenge an insult offered to their consul, resolved to send an expedition on a grand scale to take possession of their country. This was accomplished in 1830. Thus Africa has another opening for the spread of civilization and Christianity.

3. REGENCY OF TUNIS.

60. Tunis is situated between latitudes 31° 40′ and 37° 12′ north, and longitudes 7° 45′ and 11° 23′ east; and is bounded on the north by the Mediterranean Sea, on the southeast by the Regency of Tripoli, on the south and southwest by the Great Desert, and on the west by the Province of Algeria. The greatest length, north and south, is about 380 miles, and the width varies from 120 to 180 miles. The area is computed at 79,146 square miles.

61. The coast-line, which is very irregular and much broken, presents three remarkable indentations—the Gulf of Tunis on the north, and the gulfs of Hammamet and Cabes or the Lesser Syrtis on the east. On the northeast, as far as the Cape of Farina, it is bold and rocky, and presents, in Cape Blanco, the most northern point of the African continent. The shores of the Bay of Tunis are low and usually swampy, but rise toward its extremity and terminate in Cape Bon. Beyond this cape and southward the shore is generally low, but is occasionally diversified by rocky headlands of moderate elevation.

62. The physical geography of the interior is very imperfectly ascertained. The northwest portion, lying between the frontier of Algeria on the west and the valley of Mejerdah on the south and east, is traversed by a range of mountains which, entering from the west, spreads over the whole district. The height of these is estimated at 4,000 to 5,000 feet above sea-level—they are clothed with fine timber, and on their lower slopes have many fertile tracts, partly under culture and partly under olive plantations. Rich veins of lead and copper exist among them. Between these mountains and the eastern coast stretches the extensive plain or plateau of Kairwan, which is about 100 miles long by 30 miles wide, and although elevated is almost an unbroken flat, nearly destitute of trees, and, except in the vicinity of the town of Kairwan, uncultivated. Over this plain the Arabs roam, pasturing their horses and camels. The country south of this plain is almost a blank on the maps. Its fertility, however, was celebrated by the ancients, but it is understood to be at present little better than a desert.

63. The only river of any consequence in all the country is the Mejerdah, already mentioned. Rising on the northern slope of the Atlas, in Algeria, it crosses the border at Thala, and continues a general north-northeast course to the Gulf of Tunis. Both at its mouth and considerably to the west of it, near the Gulf of Biserta, are numerous large lagoons abounding with fish. The only other remarkable expanse of water is the great Lake Al-Sibkah, situated far to the south on the borders of the desert. It is about 70 miles long and from 20 to 25 miles wide; but in summer its northern portion becomes dry, and its bed incrusted with salt.

64. The exterior coast of the country is beset by numerous small islands and rocks, and at the opposite shores of the entrance to the Gulf of Cabes are the large islands—Jerbah on the south and Karkennah on the north.

65. The climate is one of the best in the Barbary States, the atmosphere being generally pure and wholesome, and the excessive summer heats moderated by sea-breezes. The mean temperature is about 69°—that of summer 84° and of winter 56° Fahr. Rains fall at intervals from November to April, but long continued and almost uninterrupted drouths prevail during the rest of the year.

66. Owing to the uncertain tenure by which property is held, and to the extortions of the government, industry has no proper basis for development. Agriculture is very much neglected, and large tracts capable of yielding productive returns remain in a state of nature. The principal crops are wheat, barley, and maize; olives also are extensively grown, and date plantations are so numerous as to furnish the principal subsistence of the inhabitants. Tobacco is also a staple crop, and, though to a much less extent, cotton, indigo, saffron, and opium; all fruits of southern Europe abound, and in various quarters drugs and dyes form special objects of culture. Mules, oxen, and camels are the principal domestic animals. Manufactures consist chiefly of woolen fabrics (more especially the beretti or red caps known all over the Mediterranean), soap, dyed skins, and ordinary and Morocco leather, etc. Mining is little attended to. On several parts of the coast the fisheries, including that of coral, are valuable; and the trade both with the interior and with different parts of Europe is of considerable extent.

67. The inhabitants, numbering in the aggregate about 1,000,000, consist of Moors, Arabs,

Turks, and Jews. The Moors and Arabs, with a few Christians, rank as the most civilized in Barbary, though, as compared with the least advanced of European nations, they are lamentably deficient in everything that constitues true civilization. Their government is a rude and revolting despotism, in which a pacha or bey, nominally sanctioned by the sultan of Turkey, but virtually independent of him, makes his will his only law, and secures obedience to it by maintaining a large standing army.

68. Tunis, the capital and principal sea-port, is situated on the west side of an oval lagoon connected by a narrow strait with the bay of the same name, and on a large and beautiful plain bounded in the distance by lofty mountains. Latitude 36° 48′ north, and longitude 10° 24′ east. It is surrounded by a double wall—an exterior about five miles in circuit inclosing the suburbs, and an interior still more lofty inclosing the city proper. It is also defended by a strong castle completely commanding the Goletta or narrow entrance to the lagoon, and by several detached forts in other directions.

69. Viewed from a distance the city presents a striking and picturesque appearance, and creates an impression not confirmed on a near approach. The streets are narrow, uneven, and filthy, and the houses, in the Moorish style, are externally mean. The public buildings include a great number of mosques, several of them handsome, and one of them a magnificent structure; the bey's palace, a handsome modern building, adorned with courts and galleries of marble, but badly situated in a narrow street; several large and well-arranged barracks; a Moorish college for theology and jurisprudence, and other superior and elementary schools;



PALACE OF THE BEY, AT TUNIS.

several Jewish and Christian churches; a theater, the public baths, and extensive and well-furnished bazaars. The principal manufactures are linen and woolen cloths, red woolen caps, embroidery, leather, and various celebrated essences.

70. Trade both with the interior and foreign states is very extensive; but notwithstanding the admirable situation of the city, considerable disadvantages are experienced on account of the shallowness of the lagoon, and hence merchant vessels are obliged to lie outside the Goletta. The place of anchorage, however, formed by an inner bay off that of Tunis, has in its center 10 to 20 fathoms depth, and is so capacious that the largest fleet may ride in it with perfect shelter, except from the northeast winds. About three miles to the northeast are the ruins of ancient Carthage.

71. On the coast northwest of Tunis are the important towns of Farina, at the mouth of the Mejerdah, and Biserta, the ancient "Hippo-Zarytus;" and on the east coast are—Hammamet, Sousa, and Monasteer on the Gulf of Hammamet; farther southward—Mahadiah, and on the Gulf of Cabes, Sfax and Cabes or Khabs. In the interior, 80 miles south-by-east of Tunis, is the celebrated city of Kairwan, long the metropolis of the Arab Empire in Africa, and still a town of 80,000 inhabitants, and famous for its sanctuary. Ghafsah, Tozer, and Neftah are towns near the southwest frontier, the two last on the west shore of the Lake Al-Sibkah.

72. Tunis has been the scene of many important historical events. Under the Carthaginians it formed an important part of their dominions; and during the Punic wars was repeatedly taken and retaken. In 439 it fell into the hands of the Vandals, but having been wrested from them about a century thereafter by Belisarius, it continued to be subject to the Greek Empire till the end of the seventh century, when northern Africa was overrun by the victorious arms and became a dependency of the caliphs of Bagdad.

73. The distance of Tunis from the seat of empire soon enabled the governors appointed by the caliphs to become virtually independent, and at last, in 1206, Tunis became an absolute sovereignty under Abu-Ferez, who soon added to it the greater part of Algiers and Tripoli. It now became notorious as a nest of pirates, and in 1270 Louis IX. of France in an attempt to suppress them lost both his life and army.

74. The last of the Tunisian kings, Muley-Hassem, having been deprived of his throne by the pirate-chief Barbarossa II., in 1531, had recourse to the Emperor Charles V., who restored him, but made his kingdom tributary to Spain. It so continued till 1574, when it was subjugated by the Turks, who at first governed it by a pacha and divan, but were ultimately obliged to allow the Moors to elect their own bey, only reserving to the Sultan the power of confirming the election and exacting tribute.

75. On several occasions the piracies of the Tunisians subjected them to severe chastisement—first from the British and afterward from France and Holland. In 1816, under a threat of a further chastisement by the British, the bey engaged forever to renounce piracy and Christian slavery.

4. REGENCY OF TRIPOLI.

76. Tripoli is situated between latitudes 27° 40′ and 32° 54′ north, and longitudes 9° 57′ and 19° 23′ east; and is bounded on the north by the Mediterranean Sea, on the east by Barca, on the south by the Desert and Fezzan, and on the west by Tunis. East and west the greatest length is about 680 miles, and north and south the breadth varies from about 100 miles in the middle to 200 miles near the extremities. Area 126,933 square miles.

77. The coast-line, the east half of which forms the very remarkable indentation anciently known as the Greater Syrtis, and now called the Gulf of Sidra, stretches in an irregular but almost unbroken course for about 800 miles, and presents so few bays and protecting headlands as not to furnish more than one good harbor—that of the capital. One half of the coast, from the Gulf of Cabes or Lesser Syrtis east to Mesurata Point, is low and sandy; the other half is more diversified, and interrupts the monotony of its sandy beaches by numerous rocky points, which were the terror of ancient mariners, though modern survey has proved that their imaginations had greatly exaggerated the real danger.

78. The interior is very imperfectly known. The eastern part, being mostly a continuation of the desert, partakes of its inhospitable character, and contains large tracts of almost barren sands. In the south, however, it is partly traversed by the Black Mountains, an eastern offset of Atlas, which, descending in successive terraces, inclose many valleys and plains of considerable fertility. Farther to the west the surface becomes still more diversified, and presents scenery which is not deficient either in beauty or grandeur. Two mountain ranges stretch from west to east, in directions nearly parallel to the coast—the one in the south called the Suara, and the other in the north called the Gharian Mountains. The latter range, which has a width of 12 to 15 miles, and attains a height of about 4,000 feet, is not more than 20 miles from the coast, and becomes visible at sea. It is composed for the most part of volcanic rocks, and many of its summits assume the form of isolated conical peaks. The space between these is often occupied by a kind of plateau. The soil upon them, produced by the decomposition of lava and basalt, is very fertile, and being often under careful cultivation, produces heavy crops of grain, more especially where the natural deficiency of moisture is supplied by irrigation.

79. Abundant rains fall from November to March, and are collected in numerous tanks and cisterns, to provide against the succeeding drouths which prevail throughout the remainder of the year, more especially from May to September, when sometimes for months not a single shower falls. At this time the heat is intense, the sirocco often blows, and the thermometer rises from 90° to 92°. During the rainy season the fluctuations of temperature are often very great, the thermometer frequently falling during the night to 40°, or to the freezing-point, and rising during the day to above 70°. The prevailing winds of summer are east, those of winter west and northwest.

80. On the sides of hills too steep to be arable, vines, olives, almonds, figs, and other fruits, are often seen growing in profusion. In these hilly tracts much of the surface is left in natural pastures, which, more especially after the heavy rains have saturated them with moisture, become extremely luxuriant, and rear cattle in such numbers as to become an important article of export. But by far the richest and most fertile tract of Tripoli is that of the Mesheca, which stretches about 15 miles along the coast, with a width not exceeding 5 miles, and has the capital nearly in its center. The whole of this favored district is economically occupied with fertile fields, on which rich crops of wheat, barley, millet, and Indian corn are grown; plantations of productive palm-trees, arranged in regular rows; olive-yards, vineyards, orchards, and gardens yielding in abundance, among other fruits, oranges, pomegranates, lemons, figs, apricots, plums, and watermelons, and culinary vegetables of all kinds.

81. Both manufactures and commerce are comparatively insignificant, and especially the former, which is chiefly confined to the capital. The only manufactures of any consequence are carpets, which have long been celebrated; mantles and other woolen stuffs; ordinary and morocco leather and potash. Trade, both seaward and with the interior, has also its emporium and entrepôt at the capital. The exports consist chiefly of woolen goods, hides, senna, saffron, oil, cattle, goat and sheep skins, dates, madder, wax, etc.; and the imports of grain, cotton goods, hardware, cutlery, fire-arms, wine, sugar, coffee, etc. The interior trade is carried on wholly by caravans, which cross the desert and penetrate even as far as Timbuctoo and Bornou.

82. The rural population consists chiefly of Arabs, the town population chiefly of Moors, both with a considerable intermixture of Jews. Neither Turks, Mamelukes, nor Christians are numerous. The government is an unmitigated and barbarous despotism. The pacha, generally chosen from among the Turkish officers resident in the capital, and confirmed by a firman of the Sultan, sets an example of tyranny and extortion which is naturally and eagerly imitated by his subordinates. A large portion of the revenues was at one time derived from piracy, since the extirpation of which the deficiency has been in a great measure supplied, not by developing the resources of the country, but by establishing monopolies, tampering with the currency, and imposing grinding taxes. The more regular and legitimate sources of income are direct tribute from the Arabs and district-governors, a land-tax, a tax on Jews and merchants, and export and import duties.

83. Tripoli, the capital, is situated on the Mediterranean, in longitude 13° 11′ east; and is distant from Sicily 288 miles. It stands on a rocky promontory washed by the sea on the north and east, and connected with the mainland on the south and west by a sandy plain, partly under cultivation; is inclosed on the land-side by a lofty wall flanked with bastions, and defended on the sea-front by a formidable line of batteries, terminating at the southeast angle in a strong castle, in which the pacha resides.

84. The town consists of a great number of narrow and uneven lanes, lined for the most part with mean houses huddled together without any order, and, from the absence of front windows, looking more like dead walls than inhabited dwellings. The pacha's castle, already mentioned, consists of an ancient pile of vast extent, built at different times, and so irregularly, that all appearance of symmetry is lost. The other principal buildings are six principal and many smaller mosques. The great mosque, situated in the main street, is a handsome and majestic structure. The other objects most deserving of notice are two or more Christian churches, a Franciscan convent, three synagogues, a number of public baths, each crowned with a dome; extensive bazaars and caravansaries, and several ancient remains, among which the most remarkable is a magnificent triumphal arch, erected in 164, to the Roman emperors Aurelius Antoninus and Lucius Verus, consisting of huge blocks of marble, beautifully sculptured on the sides and ceiling, and now used as a storehouse.

85. Trade has here the advantage of the only good harbor for several hundred miles along

the coast. It is formed by the east side of the promontory on which the town stands, and two long lines of reefs on the east and northeast, furnishing tolerably good shelter. Where deepest it has not more than five or six fathoms, but has capacity sufficient to admit whole fleets of merchant vessels; ships of war anchor in the outer roads, which have good holding-ground in 16 to 18 fathoms, with indifferent shelter.

86. Along the coast, east of the city, are the inconsiderable towns Lebidah (*anc.* Leptis), Mesurata or Misratah, Isa, Zaffran, Basaida, etc.; and to the west of the city are Tripoli Vecchia, Zoarah, Zarsis, etc. Ghadamis, in the southwest corner of the Regency, is the center of divergent caravan routes to Egypt, to the desert, and to the principal sea-ports of all the Barbary States.

87. In antiquity Tripoli was called the "Regio Syrtica," from its lying between the Syrtis Major, now Gulf of Sidra, and the Syrtis Minor, now Gulf of Cabes. In the middle ages it generally shared in the fortunes of the rest of this portion of Africa. In 1522 Tripoli was given by the Emperor Charles V., who had become possessed of some authority over it, to the Knights of Rhodes, but these were driven from it by the Turks in 1551. Fezzan was rendered tributary about 1714, but the authority of the pacha over either that country or Barca appears to be little more than nominal, or at any rate very much disturbed.

5. DISTRICT OF BARCA.

(FORMING THE EASTERN DIVISION OF THE REGENCY OF TRIPOLI.)

88. Barca lies between latitude 26° 30′ and 33° 16′ north, and longitudes 19° 20′ and 25° 40′ east, and extends eastward 3,000 miles to the line of Egypt. The breadth is very uncertain, its southern limits being at frequent intervals encroached upon by the desert. Area 73,866 square miles.

89. With the exception of Herodotus, all ancient writers represent the country as a desert; and this representation has been generally believed even in modern times; but it is now ascertained that though that part of it near the great Libyan desert, which bounds it on the south, is almost barren, the sides and summits of the hilly east and north portions are fertile. In these localities are seen cultivated fields which yield luxuriant crops and large tracts of excellent pasturage.

90. A little way inland an extensive plateau, broken by a range of hills, lies parallel with the coast. The utmost height of these hills does not exceed 1,800 feet; and the whole of this tract is thickly wooded and covered with an excellent soil. Among its vegetable productions are the pine, palm, date, fig, and olive, and a great variety of flowering shrubs, including roses, laurestinas, honeysuckles, etc. The principal cereals cultivated are Indian millet and oats. There are no rivers which contain water at all seasons; but in absence of these there are a vast number of hill torrents that pour down the ravines east, south, and west, and are soon lost in the sands. Amid these, however, are found the two oases of Aujilah or Aoudjelah and Siwah or Syouah.

91. Derné, Derneh, or Derna (*anc.* Darnis), is a sea-port on the northeast coast, and contains about 6,000 inhabitants. It is regularly but meanly built, and is the residence of the bey. Westward of this place and along the coast are Dolmeita (*anc.* Ptolemais), Taukra or Teukera, Bengazi (*anc.* Berenice), etc., once flourishing towns, but now reduced to insignificance. Beyond it, eastward, near the Ras-al-Milhr, is the town of Kasr-Kumbus.

92. But the most interesting place of the District is Grennah or Kuren (*anc.* Cyrené). It is built on the plateau of Barca, 1,800 feet above the sea-level, and in latitude 32° 50′ north, and longitude 21° 47′ east, about 500 miles east Tripoli. At the present day it is a miserable place, but the numerous remains of an ancient splendor discovered in and near the town naturally attract the traveler's attention. The most remarkable of the ruins is the "necropolis," consisting of tombs arranged in terraces along the hills, and extending a mile and a half along the roads leading to the town, so as to present the appearance of splendid streets. It was the birth-place of Aristippus, Eratosthenes, and Callimachus. It was founded in the year 632 B. C. by a colony of Greeks, and became the capital of a district to which it gave its name, extending from the Great Syrtis to the Gulf of Platea.

93. In the southern part of Barca, in the district of Aujilah, is the town of Aujilah, which derives some importance from its being a station on the great caravan route between Egypt and Fezzan.

94. Barca, so called from the Greek *Barkē*, once contained two wealthy Greek colonies, one of the same name and the other called Cyrené (*Kurēnē*), and was regarded as one of the chief granaries of the African coast. The Romans succeeded the Greeks; and now the Arab is the sole master of its once prolific soil.

[*Weights, Measures, and Moneys.*—In general the commercial weights and measures in Morocco are cognate with those of Spain, in Algeria with those of the French metrical system, and in Tunis and Tripoli and their dependencies with those of the Ottoman Empire. The native local denominations are as follows:

Weights.—(*Morocco*) the rotl = 709.3 grammes or 1.53905 lb. avoirdupois;—(*Algeria*) the rotl-a-thary of 16 vakias = 546.08 grammes or 1.20403 lb. avoirdupois; the rotl-kebir of 18 vakias = 614.34 grammes or 1.35453 lb. avoirdupois, and the rotl-greddari of 24 vakias = 819.12 grammes or 1.80604 lb. avoirdupois. These weights are used in different departments of trade;—(*Tunis*) the rotl is of three values, as in Algeria, of 16, 18, and 24 vakias; the rotl of 16 vakias = 503.72 grammes or 1.11057 lb. avoirdupois, and the others in proportion; and—(*Tripoli*, etc.) the rotl = 497.66 grammes or 1.09569 lb. avoirdupois. In all cases the primary rotl is divided into 16 vakias, 256 dirhems and 4,096 kharoubs of 4 grains, and 100 rotl = 1 chuntur or cantar. The Moorish metical (gold and silver weight) = 4.73 grammes or 73 grains Troy.

Measures.—(*Morocco*) the canna = 538 millimetres or 21.18 inches; the colla = 14 litres or 3.7 gallons; and the almude = in weight 27½ rotl;—(*Algeria*) the dzerd or pik of two values, viz., the Turkish = 640 millimetres or 25.14 inches, and the Moorish = 480 millimetres or 18.89 inches: the hollah = 16.66 litres or 4.4 gallons; the metalli of oil = in weight 37½ rotl-a-thary; the psahh = 58 litres or 1.64 bushel, and 6 psahhs = 1 cafiz;—(*Tunis*) piks, viz., one (cotton) = 489.2 millimetres or 19.26 inches, another (silk) = 635.4 millimetres or 25.02 inches, and a third (woolen) = 668.7 millimetres or 26.33 inches; the millerole (wine) = 64.13 litres or 16.94 gallons; the calla (oil) = 7.56 litres or 2 gallons, and the mattaro = 20.17 litres or 5.73 gallons; and—(*Tripoli*, etc.) the two piks as in Algeria; the caraffa (oil) = in weight 3½ rotls, and the mattaro = 42 rotls, and the cafizo of 20 tiberi = 297.84 litres or 8.46 bushels.

Moneys.—The moneys of account and the coinage in the various states are as follows. In *Morocco* money is stated in ukiahs or dirhems of 4 blankeels, each of 24 flus or filse; 10 ukiah = 1 miscal, and 54 blankeels = 1 Spanish dollar, and hence the ukiah = about 7½ cents, and the miscal about 75 cents. The coinage is that of Spain, and minted for the emperor at Madrid.

In *Algeria* the natives count in budchu of 24 monzonnahs, each of 2 xarobs or 29 segers or aspers. The budchu = 1.86 franc. The budchu and monzonnah are silver coins; a gold sequin of inferior value is also coined, and is valued at $1.46. In *Tunis* and *Tripoli* Turkish coins are used, and accounts generally kept in ckirsh.]

SAHARA OR THE DESERT.

1. Sahara or the Great Desert, a country of immense extent, occupies the central parts of northern Africa. Its western extremity is washed by the Atlantic, along which it extends from Cape Nun (latitude 28° 46′) to the mouth of the river Senegal (latitude 17°); and from the shores of the ocean it extends eastward nearly across the continent, being separated from the Red Sea only by the valley of the Nile and the rocky country which lies beyond.



STORM IN THE DESERT.

2. The Atlas Mountains constitute the northern boundary from Cape Nun in the west to longitude 10° in the east. From this meridian as far east as the valley of the Nile (longitude 30° east), a stony and broken country extends between the Desert and the Mediterranean, comprehending the countries belonging to Tripoli and including Barca, and the Stony Desert which lies between Barca and Egypt. This rocky region terminates in the Desert near 20° east longitude, and on the east of it the Sahara appears to extend to the shores of the Mediterranean in a zone with a width of about a hundred miles.

3. The southern boundary is best known toward the Atlantic, where it extends to the vicinity of the Senegal River, and between 15° and 4° west longitude approaches the parallel of 15° north latitude. Farther east, the river Joliba or Quorra constitutes the dividing line between the Desert and Soudan as far as the meridian of Greenwich, so that Soudan advances to 17° north latitude, near Timbuctoo. Between that place and the Lake Tchad the boundary line probably lies near 14° north latitude, and this parallel may also be considered as dividing the Sahara from eastern Soudan as far as the frontier of Darfur, 23° east. Farther east it lies between 16° and 17° north latitude.

4. From these facts it may hence be inferred that on an average the Sahara extends, north and south, over fourteen degrees of latitude, or 960 miles. Its length, east and west, through 44 degrees, is about 2,000 miles. Within these limits there is a probable area of 2,000,000 square miles.

5. The Sahara is a desert; but it is not, as is commonly supposed, covered in its whole extent by fine and loose sand. There are tracts of considerable extent the surface of which is covered with a thick layer of fine, loose sand, and with low sandy hills; but it would seem that the greater part of this immense country consisted of a firm soil, in many parts composed of indurated sand, in others of sandstone. The surface of other tracts consists of rocks, especially granite, and frequently granite mixed with quartz. A very few tracts, and those of small extent, are found to be covered with bushes and coarse grass. This general sterility is owing to the dryness of the atmosphere. The Sahara is situated in that part of the globe which separates the region of the winter rains from those of the summer rains, and it does not participate in either of them. In by far the greatest part of the whole region a drop of rain never falls to refresh the arid soil; and in those districts which approach the countries which have abundant rains, only a few showers occur in August and September, and even these not every year. This want of rain renders the whole region unfit for any kind of cultivation, but not uninhabitable, as the lower depressions contain a few wells, in the vicinity of which the soil is covered with grass and bushes that afford pasture to camels, goats, and sheep. These animals supply subsistence to the nomadic tribes that wander about in this boundless waste.

6. Travelers who cross this region are exposed to many dangers. No provisions can be got along the whole route, which exceeds 1,000 miles in length, and hence the traveler must carry everything with him. The wells of drinkable water occur only at great distances from each other; and if the season is drier and hotter than usual, the wells are dried up. Whirlwinds often blow with great force and raise large portions of the sand, depositing it again at some distance. Such pillars of sand have buried many caravans. But these are not all the dangers to be encountered. The inhabitants of the Desert lead a wandering life and, like all nomads, are always ready to attack the traveler, to deprive him of his goods, and to reduce him to slavery. In spite of all these dangers, however, the Sahara is annually traversed by several caravans which carry on the commerce between Soudan and the countries on the shores of the Mediterranean.

7. There is, however, a tract across the Desert in which the dangers above enumerated are small. It lies between 13° and 16° east longitude, and owes its advantages partly to climate

and partly to its soil. It is remarkable that this tract occurs where no elevated country lies between the Mediterranean and the Sahara, but only the low range of the Harutsh, which joins that arm of the Sahara that reaches the shores of the Mediterranean. The country along the Gulf of Sidra and the Sahara does not appear to rise in any part more than 1,000 feet, and in most parts it is much lower. Through this wide gap the northern winds, which frequently blow a gale and bring moisture from the north, which at that season is drenched with rain, find access to the Sahara, and produce a considerable degree of cold even as far south as Murzuk. To these winds also we may probably ascribe the rain which falls at this season in Fezzan, and renders it the most fertile tract in the Sahara. These rains appear to extend to 21° north latitude; and as the northern limit of the tropical rains occur near 16°, the tract between the two limits of rain does not exceed five degrees of latitude, while in other places it occupies more than double that extent. The advantages of this tract as a thoroughfare for caravans consists in the smaller extent of the sandy tracts and of the continuous or broken ridges of rocks. Though the rocky parts within this rainless region resemble the sandy tracts, in being without vegetation, the wells which occur between them are more numerous and rarely more than a few days' journey apart. The road through this country gives the easiest access to the interior from the north. After leaving Tripoli it runs southeast to the northern boundary of Fezzan over a country which partakes in some degree of the nature of the Sahara, presenting a succession of plains and ridges of hills, without vegetation, but between which are fertile valleys. This country, which extends to the town of Sukna, has abundance of wells and waters. South of this place extends the Harutsh Assouat or Mons Niger, occupying a width of about 35 miles.

8. Fezzan, which extends from the mountain tract to the northern tropic, consists of numerous small oases separated from each other by comparatively narrow tracts of sand. Water is abundant, except toward the southern boundary, where a level desert occurs, which



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can only be traversed in four days; but in the middle of it there is a small place called Gatrone, surrounded by sand hills and mounds, covered with small trees. At Kasrowa and Tegerhy there are extensive plantations of date-trees, and abundance of water.

9. From the southern boundary of Fezzan to the town of Bilma, or from 23° to 18° 30′ north latitude, a continuous ridge of steep, rocky hills, elevated from 300 to 500 feet above the plain, runs almost due north and south; and from 5 to 20 miles east of this ridge there are isolated hills, mostly composed of sand, but in some places of rock. Between these rocks the road runs over a stony plain, without the least vegetation; but after the rains a grass quickly springs up which is several feet high, and the rains fall in torrents as far as the Tiggerindumna Hills. It would therefore appear that in this tract the northern rains extend to 21° north latitude. No part of this country is inhabited, but wells of drinkable water occur at distances of three or four days' journey. Near 19°, however, there are several small towns or villages which owe their existence not so much to a certain degree of fertility in the soil as to numerous small lakes which lie along the foot of the rocky range, and in which trona crystallizes. In the vicinity of some of these lakes there are groves of date-trees, and pasture-ground for cattle. In some parts the soil is covered with incrustations of pure trona, which extend for several miles in every direction. In a few places mimosa-trees are found. Bilma is noted for its extensive salt-pits.

10. South of Bilma the road runs over loose hills of fine sand in which the camels sink nearly knee-deep. The hills sometimes disappear in a single night by the drifting of the sand, and all traces of the passage even of a large caravan vanish in a few hours. Wells are rare. After four days' traveling from Bilma the wells of Dibla are met with, and after four days more those of Aghadem. The last-mentioned wells are abundant, and situated in a woody valley, which, however, is not inhabited. After three days more the country is reached which enjoys a small portion of the tropical rains, and the soil improves. At first the sandy soil is interspersed with clumps of grass, and here and there with low bushes; trees soon appear, and then increase in number. Thus the Desert ceases near 16° north latitude, but no permanent habitations are met with until the vicinity of Lari is reached, a town which is situated a short distance from Lake Tchad (14° 20′). The desert between Bilma and Lari is called the Desert of Tintuma.

11. The tract above described as traversing the Desert, north and south, divides the Sahara into two unequal parts, of which the western and larger is known among the natives by the name of Sahel, and the eastern and smaller, among geographers, by that of the Libyan Desert.

12. The Sahel is by far the worst part of the Sahara. It does not appear that in all this vast extent a single oasis occurs, the soil of which is fit for agriculture, or for the growth of date-trees. The soil, however, varies greatly, passing from a fine to a coarse sand and gravel, and then gradually to a bare stratum of broken stones and rocks. In many places hills of moderate elevation occur, some consisting of sand and subject to be changed in size and form



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by the winds, and others of rocks, chiefly of granite and quartz. All these soils are destitute of vegetation, which only appears in the depressions between the hills, and sometimes at the base of the rocky elevations. There appears, however, to be tracts, though of small extent, which are fit for pasture; for, according to all accounts, the number of individuals who find subsistence in this part of the Sahara is considerable, and they subsist altogether on the produce of their herds. And it would appear that at no great distance from the sea the country contains extensive pasture grounds, though of very inferior quality, and frequently interrupted by tracts which are completely sterile. Farther inland, desert tracts, entirely destitute of vegetation and inhabitants, are scattered over a much greater portion of the country; but it is perfectly sterile, and uninhabited only along the caravan road (purposely formed through the worst part of the Desert, the merchants on this route being secure from robbery and taxation by the independent tribes), so that the cafilas generally terminate their long journey without meeting with a single person. The different tracts covered with sand, gravel, and rocks, as well as the ridges of low hills which occur along the caravan road, run east and west, a fact which may, perhaps, be accounted for by the circumstance that the wind almost without exception blows from the east. The country between this road and the road between Tripoli and Lari is inhabited by numerous tribes of Tuaricks.

13. The coast of the Sahara extends, perhaps, more than 1,200 miles along the Atlantic. Modern surveys of the shore have shown that nearly the whole of the coast is elevated, and consists of sandstone, which in most parts rises to the height of 100 feet and more; but in some does not exceed 60 or 80 feet. A low coast only occurs between Cape Mirik (19° north) and the mouth of the river Senegal; but here, as at some other parts of the coast, dunes or sand-hills are found at no great distance from the shore, and behind these the flat country seems to have a considerable elevation. The whole coast, as far south as Cape Blanco, is free from sand-banks and shoals, and has regular soundings, gradually increasing in depth from the beach and attaining at four miles' distance from 30 to 34 fathoms, at twelve miles from 50 to 60 fathoms, and at thirty miles about 100 fathoms. The water then deepens very suddenly; a large sand-bank, however, extends from Greyhound Bay (21° north) to Cape Mirik, and on this (called the Bank of Arguin) the French frigate Medusa was lost in 1816. The currents generally follow the direction of the coast. East of Cape Juby is a sudden bend of the coast, which is the most dangerous place on the whole line, as the swell is almost invariably from the northwest, and consequently almost directly on the coast; besides this, the fine particles of sand which cover the Desert being blown into the sea, and mingling with the haze occasioned by the heavy surf, render this coast very indistinct. The westerly winds, so prevalent on this coast, are supposed to be produced by the rarefaction of the air over the Desert intensely heated by the almost perpendicular rays of the sun.

14. The eastern part of the Desert, unlike the western division, contains a considerable number of oases or fertile tracts which support a moderate population, and nearly all of them are overspread with extensive groves of date-trees and fields in which dhurra is grown. These belong chiefly to Egypt.

15. It has been ascertained that no rain falls along the coast south of Cape Juby. Some showers fall annually in the countries south of Mount Atlas, but it is not known how far inland they extend. These showers fall between August and November. Along the coast heavy dews occur in the summer months. In the interior the wind blows almost without interruption from the east, and in the daytime frequently with violent gales, which, however, is generally followed by a dead calm after sunset. The strong wind moderates the heat of the burning sun, and hence the nights are usually more insupportable than the noonday heat. The violence of the gales frequently raises the loose sand in such quantities that a layer of nearly equal portions of sand and air, and rising about 20 feet above the surface of the ground, seems to divide the purer atmosphere from the solid earth. This sand, when agitated by whirlwinds, sometimes buries cafilas, and often puts them into the greatest confusion. The degree of heat to which these countries are subject is variously stated. On the southern border of the Sahara the thermometer at noon in summer rises to 107°, and in some places to 120° and 140° Fahr. The greatest degree of heat which is experienced in the interior of the Sahara seems to occur in August and September, at which time caravans do not venture to

travel, though it is the season in which the northern parts of the Desert are refreshed by showers of rain.

16. The Desert is almost destitute of minerals, exeept iron and salt, the first of which occurs between Fezzan and Bilma, and the latter is obtained from springs and lakes. Salt also occurs in extensive beds in the Sahel. It is of great importance to the inhabitants, and furnishes them with the most abundant material of commerce. The countries south of the Sahara, comprehended under the name of Soudan, appear to have no salt, and all the salt which is consumed in them is brought from the Sahara. The only places permanently inhabited in the Sahel are those in which salt is found.

17. The vegetable productions are equally few in number. Date-trees are only found in the oases of the eastern districts, and at the foot of Mount Atlas. The Tibboos, a native tribe of the Libyan Desert, cultivate "gufsub," a species of millet, and a little cotton. Among the wild plants there are some species of mimosas and acacias; and the "hedysarum alhaji," a thorny plant about 18 inches high, which remains green all the year round, grows in many parts of the Desert in the sands, and is eagerly eaten by the camels. It is nearly the only plant that supplies them with food while they are traversing the wastes. Near the most southwestern corner of the Sahel are extensive woods, consisting of acacia trees, from which by far the greatest part of the gum is obtained which in commerce is known as gum-arabic.

18. The most useful domestic animal is the camel, without which these extensive deserts could not be traversed. The camels which are reared by the tribes which inhabit the Desert are distinguished by their extraordinary speed and abstinence, and known in northern Africa by the name of heiries or maharhies. Next to the camel the most useful animal is the goat, which is very abundant in the Sahel, as the dry pastures are more adapted to it than to sheep; but sheep are also numerous and common, and in places having good pasture there are some black cattle of a small breed. Horses are rare in the Sahel, but more numerous in the eastern desert. Among wild animals, the lion and panther hold the first place. Gazelles are frequent in all places where bushes and shrubs occur, and in a few places antelopes are met with. In the deserts bordering on Egypt the jerboa abounds. In the Sahel ostriches are numerous, and are hunted, chiefly from May to July, by the natives for their feathers. Vultures and ravens are the only birds that inhabit the deserts, except on some of the lakes along the rocky hills between Fezzan and Bilma, where there are snipes and wild ducks. In some parts the Guinea fowl occurs; and there are serpents in the Desert.

19. No estimate of the population of the Sahara has ever been made from tangible facts; and the inhabitants, being dispersed in numerous independent tribes, any attempt at numeration would fail. They belong to four nations—Moors, Tauricks, Tibboos, and Arabs. The Moors seem to be in possession of the whole country west of the road leading from Timbuctoo to Drah. They are a branch of the Moors who inhabit Morocco, but have a greater mixture of negro blood in them. Their complexion is in general nearly black, but the red color under it is perceptible; their hair is straight; they have a spare body and rather slender legs; the spine is slightly curved, the face long, the cheeks hollow, the eyes sunken, but lively. They speak the Moghrebin dialect of the Arabic language; and though they live on the produce of their herds, and consequently lead a nomadic life, they take care of the education of their children, all of whom are taught reading and some part of the Koran. They are very expert in tanning and preparing leather, in manufacturing bracelets, ear-rings, and necklaces of gold —in making knives, and daggers, and other arms, and they are even expert in weaving. Many of them are merchants, and a still greater number are employed in accompanying the cafilas on the route between Drah and Timbuctoo. The Tuaricks occupy the center of the Sahara. The form of their body and their language prove that they belong to the aboriginal inhabitants of northern Africa, who are known by the name of Berbers, and in Morocco are called Amazirghis. The Tibboos occupy the tract between Fezzan and Lake Tchad and an extensive country extending east of this line toward the Egyptian frontier. In features they strongly resemble the negroes. Most of them are quite black, though some have copper-colored faces. All the nomadic tribes are independent, but Fezzan and Ghadamis are subject to Tripoli, and the oases along the western edge of the valley of the Nile, as well as Siwah, depend on Egypt.

20. Though the Sahara only supplies three commercial products, salt, gum-arabic, and ostrich feathers, a considerable traffic is carried on between the countries north and south of the Desert, which is frequently traversed by caravans consisting of from 200 to 500 persons, and of from 500 to 2,000 camels. A camel's load is 500 pounds. The caravans export from the countries situated on the Mediterranean chiefly goods of European manufacture, such as fire-arms, gunpowder, and some cotton stuffs, to which are added some articles manufactured at Fez, and tobacco, dates, etc. The returns include gold, ostrich feathers, and ivory. In traversing the Desert the merchants usually buy large quantities of salt, which they sell in Soudan at a great profit. This article is chiefly obtained at Taudeny, Hoden, and Shingarin. The town of El-Arawan sends the abundant produce of the rock-salt mines of Taudeny to the countries on the banks of the Joliba, especially to Sansanding and Yamina, and receives in return ivory and gold, slaves, wax, honey, cloths of Soudan, and cured provisions. The salt of Hoden and Shingarin is carried to the same places and to Sego by the caravans of the merchants of Walet, a town which is said not to be inferior in extent and population to Timbuctoo. The caravan route from Timbuctoo to Benown in Ludamar passes through Walet.



TRAVELING IN THE DESERT.

21. The nature of the Sahara opposes insuperable obstacles to the progress of a conqueror. The Greeks and Romans were only well acquainted with the oases of the Libyan Desert, which are at no great distance from the western edge of the valley of the Nile, and with those which are contiguous to the rocky region that divides the Desert from the Mediterranean, as the Ammonium (now Siwah) Aujila, and Cydamum (now Ghadamis). The coast of the Sahara was discovered between 1412 and 1443; but the interior of that country was unknown up to the end of the eighteenth century, with the exception of what knowledge might be derived from a few notices in the writings of Leo Africanus.

22. The first impulse to discovery in the interior of Africa was given by the establishemnt of the African Association in 1788; but before their labors produced any important results, Browne had succeeded (in 1793) in penetrating to Darfur with the Soudan caravan through the oases which lie near Egypt. Before he published his "Travels" (1800), Mungo Park had returned from the banks of the Joliba, where he had collected some information respecting the southwestern districts of the Sahara, though he had only been on the borders of the Desert. Two years afterward, the travels of Hornemann, who had penetrated from Egypt to Fezzan by the way of Siwah and Aujila, were published. In 1819, Captain Lyon entered Africa from Tripoli, and although he did not add much to our knowledge of the Sahara, he collected much interesting information, which was published in 1821. Denham, Clapperton, and Oudney (1822–23), following the same route, not only traversed the Desert in all its width, from Tripoli to Bornou, but discovered a considerable extent of Soudan.

23. These important discoveries were to be enlarged by the travels of Major Laing, who in 1825 likewise departed from Tripoli, and passing through the oasis of Ghadamis, traversed the whole width of the Sahara, and reached Timbuctoo; but, on attempting to return to Morocco by the way of El-Arawan, he was murdered by the natives before he reached that town. Two years afterward, Caillié, a Frenchman, who in 1827 had traversed the southern portion of Senegambia, and then passed through the western countries of Soudan to Timbuctoo, departed from the last-mentioned place and reached Fez by the route which is frequented by the caravans that carry on the trade between Soudan and Morocco. Since this period, journeys have been made by several parties.

[*Weights, Measures, and Moneys.*—Unknown; commerce is conducted by barter.]

SOUDAN—COUNTRY OF THE BLACKS.

1. Soudan is the name used to designate that large extent of country stretching along the southern edge of the Sahara from Senegambia on the west to Sennar on the east. It thus extends from about 10° west to 32° east longitude, and in its eastern section includes a large portion of country subject to Egypt. The average width is, perhaps, less than 400 miles, and the area about 1,000,000 square miles. The north boundary toward the Desert, however, is imperfectly known; in one part, at the most northern bend of the Kowara or Joliba, the fertile country extends to 17° north latitude; but in other places, as in the vicinity of Lake Tchad, it does not come up to 14° north latitude. West of the course of the Kowara the southern boundary is formed by the Kong Mountains, between 7° and 11° north latitude. This country may be advantageously described under three general heads—Western, Central, and Eastern.

2. Western Soudan comprehends the country west of the course of the Kowara, from Timbuctoo to its entrance into the delta at Abbazaca. Most of the rivers descending to the south or the north from the Kong range have very little water in the dry season. In the eastern part of the mountains the surface generally consists of a fertile soil, covered in some places with forests of tall trees, and in others with luxuriant grasses. These forests abound in deer, antelopes, lions, leopards, elephants, wild asses, buffaloes, and hyenas, and in the Kowara the hippopotamus is common. Where cultivated, the country yields plentiful crops of indigo, tobacco, yams, wheat and other grains, rice, etc., and in the extensive pastures great numbers of horses, buffaloes, sheep, and goats are fed. In the neighborhood of the Kowara the region is rather densely inhabited, and towns and villages are numerous.

3. The country extending from the base of the Kong Mountains to the edge of the Sahara may be considered as a plain, the elevations being inconsiderable and at wide intervals. The soil is chiefly gray or red sand, and frequently mixed with gravel, argillaceous earth, clay, and mold. In the vicinity of streams it is subject to inundation for more than six months of the year. The more distant parts have the advantage of abundant rains. Shea-trees and nedés are dispersed over large tracts, and here nearly all the vegetable butter is collected which is consumed on the banks of the Kowara. In a few places the baobab-tree abounds; and throughout this region maize, millet, rice, tobacco, yams, cotton, beans, melons, etc., are cultivated. Domestic animals abound in most parts, especially black cattle, sheep, and goats; the horses are of small breed. Dogs, serpents, lizards, rats, and mice serve as food to the natives. Fish abound in the rivers. Wild bees are numerous, and wax and honey are largely consumed, and are also sent to other parts of Africa. From the ferruginous stones which are so frequent in this region, iron is extracted, and carried to the towns on the Kowara.

4. That part of Western Soudan which is north of the Kowara and the marshes contiguous to the river, is tolerably fertile to a considerable distance from its banks. It is a plain with

occasional sandy hills and rocky eminences. The soil produces plentiful crops of millet and maize; and villages and towns are numerous. Proceeding farther north, however, the soil becomes less fertile, as the sand of the Sahara is frequently thrown upon it by the stormy northeastern winds. Elephants, lions, panthers, leopards, and wild hogs are numerous; and among the domestic animals are camels.



SOLDIERS OF BORNOU.

5. The country on the Joliba or upper Kowara is sultry and oppressive before the rains. About the middle of June the heated atmosphere is agitated by violent gusts of wind, accompanied with thunder and rain. These usher in the rainy season, which continues to the month of November. The prevailing winds are from the southwest. The termination of the rainy season is likewise attended with violent tornadoes, after which the wind shifts to the northeast, and continues to blow from that direction for the remainder of the year. With the accession of the northeast wind the grass becomes dry and withered, the rivers subside very rapidly, and the trees shed their leaves. At this period the "harmattan" is commonly felt. As this wind passes over the Great Desert it becomes exceedingly hot and dry as it approaches Soudan, and parches up everything which is exposed to it.

6. Central Soudan comprehends that portion which extends from the Kowara (where it flows southward) as far east as Lake Tchad and the river Shary, which falls into that lake, or from 5° to 16° east longitude. It may be divided into two regions—a hilly region and an alluvial plain. The first occupies the country west of the 11th meridian, and the plain occupies the country to the eastward of the same line.

7. The hilly region seems to extend to the very borders of the Sahara, which in these parts occurs between the 14th and 15th parallels. The surface is extensively varied in character and productiveness. The highest hills which have been seen are not much more than 700 feet above their base, and the general level of the country seems to be about 1,000 or 1,200 feet above sea-level.

8. A great part of this region extends in level plains, which are chiefly converted into large swamps or temporary lakes during the rainy season, but this circumstance is favorable to production. A large tract, in which the swamps are permanent, situated north of 13° north latitude, and between 6° and 8° east longitude, is known by the name of the Gondami Swamps. Hills of granite of moderate elevation inclose this tract on all sides, and prevent the water which collects on the surface from running off in any direction. These hills are covered with stunted trees, while the country between them and the swamps is overgrown with forests. Nearly all the rivers and water-courses are rapid and deep during the rainy season, but in the dry season only pools, sometimes single, sometimes in rows, occupy the lowest part of their beds. The clayey soil retains moisture the year round, and on this account this region is rendered the most fertile tract of Africa north of the equator, and it is at the same time one of the most populous regions.

9. In the districts south of 10° north latitude, palm-oil and cocoa-nut trees abound, and plantains and bananas are grown. In the eastern parts date-trees are common. The fruit trees which appear to be most widely distributed are the fig, pomegranate, lime, papaw, and tamarind; the butter-tree also abounds in several places; and the mango-tree is cultivated and occurs also in a wild state. The domestic animals are goats, sheep, asses, horses, and cattle. The horses are small, but along the northern border they are larger and of a good breed, which is derived from that of the Tuaricks of the Sahara. In these districts many camels are also reared. Poultry abounds. In some woody parts, especially in the neighborhood of the swamps of Gondami, there are numerous wild animals. Iron is the only mineral product; it occurs in many places, and a small quantity is exported to the countries farther east.

10. The plain of Central Soudan extends from 10° east longitude to Lake Tchad, and from 14° to 10° north latitude, where it lies contiguous to a hilly country. This plain is probably the largest alluvial tract on the globe which occurs far inland, if the plain surrounding the Caspian Sea be excepted, which is of a different character. The alluvial plain of Soudan is nearly a dead level. It is very fertile, but not easily cultivated, owing to the rank vegetation caused by the rains. The southern districts, however, are in general populous, and large portions are cleared and cultivated. In many parts there are extensive forests. The climate differs considerably from that of the hilly region; it is in general much hotter, and the daily range of the thermometer is much less. The principal objects of cultivation are gussup (a kind of millet), maize, cotton, and indigo. Katheia and meloheia are two kinds of grasses growing wild, the seeds of which are used as grain. The domestic animals, however, constitute the wealth of this country.

11. Eastern Soudan extends eastward of Lake Tchad and the river Shary to the Egyptian territories, and properly includes Darfur and Kordofan. Exclusive of these the east limit would be the 25th meridian. Little is known of all this region. According to information furnished to travelers by natives of Africa who visited this division of Soudan, it is divided into three countries or states: Kanem, contiguous to the north and east shores of the Lake Tchad; Bagirmi, lying along the north bank of the river Shary, and Waday, occupying the remainder of the country as far east as Darfur.

12. The population of Soudan is composed of aborigines, who belong to the negro race, and of races of foreign extraction. The negroes are almost exclusively the inhabitants of the mountain region of Kong, but on the plain north of that range they have intermixed with Mandingoes and Foulahs. In the hilly region of Central Soudan negroes constitute the bulk of the population, but they are governed by Fellátahs, and in the eastern plain they are intermixed with Arabian tribes, which have here the ascendency. These negroes live in small, well-built huts, and generally wear a slight but decent dress, which is adapted to the climate. They apply themselves to agriculture, and in some parts the ground is cultivated with a degree of skill. They manufacture great quantities of cotton cloth, only from five to six inches wide, but of good texture. They are also expert in forging iron, and make arms, agricultural implements, and even needles.

13. The foreigners settled in Soudan are Mandingoes, Fellátahs, and Arabians. The Mandingoes are only met with in the plains north of the Kong Mountains, where they have settled as merchants, and have attained a superiority by their higher degree of civilization and by being Mohammedan. The Fellátahs are the same nation which in Senegambia is known by the name of Foulahs. The Arab settlers are found only in the neighborhood of Lake Tchad, where they lead a wandering life, living on the produce of their cattle, and are known by the name of Shouaas.

14. Soudan contains many large and small states, and there occurs also extensive tracts in which the inhabitants live in a peaceful state of society, without having entered into a political union. These will be noticed in the order of the natural regions of the country.

15. The mountain region of Western Soudan, or that of the Kong Mountains, is only partially known, and comprehends two extensive countries—Yarriba and Borgoo, which are separated by the small river Moussa, which falls into the Kowara near 9° 20′ north latitude. This region is very populous, and contains many villages and towns.

16. Yarriba seems to extend westward to the very boundary line of Ashantee; on the southwest and south it is separated from the Bight of Benin only by Dahomey and the country called Jaboo. The Kowara divides Yarriba from the kingdoms of Nyfi and Yaouri. The present capital is Eyeo or Katunga, about 20 miles west of the Kowara. It is 15 miles in circuit, and surrounded by mud walls and a ditch, and has about 20,000 inhabitants. The second town, and formerly the capital, of the kingdom is Bohoo, which has a triple wall more than 20 miles in circuit. There are also several large towns on the Kowara, as Layaba, near the boundary of Borgoo, which is very extensive and has a large population; Bajiebo, a flourishing trading town; Lechee and Eggo, both considerable towns; and Kakunda, which is governed by a sovereign independent of Yarriba. On the road leading from Badagry to Eyeo there are several other large towns, and between Eyeo and Bohoo are Eetcho, Atoopa, and Jagúta, the last a large and well-fortified place. Southwest of Bohoo is Kooso (a double-walled town, which has 20,000 inhabitants and is a place of great trade), Cháadoo, Duffoo, Assondo, Assula, and Jenna. Within the territories of Yarriba the Fellátahs have established some independent states, among which the towns of Racca, not far from Eyeo, toward the northeast, and Alorie, southwest of the capital, are said to be very populous.

17. Borgoo, which lies to the north of Yarriba, consists, so far as known, of ten states, governed by independent kings, and loosely connected with one another. The most powerful is the sovereign of Niki, who, by way of distinction, is styled the king or sultan of Borgoo. The countries of the kings of Wawa, Kiama, and Boussa were visited by Clapperton and the Landers. The capitals have the names of the countries. Kiama is a commercial town of 30,000 inhabitants; Wawa or Woword is a very neat and compactly built town of 10,000, and Boussa, on the Kowara, has from 10,000 to 12,000 inhabitants. These towns are inclosed with mud walls, and the greater part of their area is covered with corn-fields and gardens. The houses are usually of a circular form. Two caravan roads traverse this region, and are much frequented by merchants from Houssa and other countries of central Africa. The most northern passes through Kiama, and the southern through Bohoo and Kooso. These two roads lead to Gonja, a country lying west-northwest, either within the range of the Kong Mountains or along their northern base. Frequent fairs and market days are regularly held in all the larger towns.

18. The southern part of the plain of Western Soudan presents a remarkable instance of people living in security and having attained a certain degree of civilization without entering into close political union. Toward the west, near the boundary of Sierra Leone and Senegambia, there are some small states, among which Sangara, Amana, Kankan, and Wassoolo are best known; but east of the 7th meridian west each town and village is independent of its neighbors, and each, though inhabited by a mixture of Mandingoes, who are Mohammedans, and Bambarras, who are pagans, still live in amity. In this region, however, no large towns are met with; some of them, situated on the caravan roads, contain as high as 5,000 or 6,000 inhabitants, as Kankan, Tangrera, Toomaneh, and Dooasse; and Kayaye, which has not been visited by Europeans, is said to be a large place. The commerce of this country is considerable.

19. On the banks of the Joliba or upper Kowara there are several kingdoms. That of Booreh comprises the greater part of the country between 9° and 7° west longitude on both sides of the river. It is inhabited by Mandingoes. The mountains which divide it from Senegambia are very rich in gold. East of Booreh is the kingdom of Bambarra, in which several towns of considerable extent are situated, as Bammakoo, Marraboo, Koolikorro, Baba, Yamina, Sai, Sego, Sansanding, Sella, etc. East of Bambarra is the kingdom of Jenné, the territory of which extends to the vicinity of 15° north latitude. It has obtained its name from Jenné, the principal commercial town; but the capital and residence of the sultan is called Ellam du Lillahi ("to the praise of God"), where there are said to be public schools in which children are taught gratuitously, and also schools for adults. The town of Jenné is about six miles from the banks of the Joliba; but the whole intervening country is cut up by numerous water-courses, so that vessels of 80 or 100 tons burden can come up to the town in the rainy season, and smaller vessels all the year round. The population may amount to 10,000. North of Jenné are Masina, on the left side of the Joliba, and Banan, on the right side. They extend as far north as Lake Debo. North of the lake and east of the river is an extensive country called Dirimans, the capital of which is Alcodia. This country apparently extends to the vicinity of Timbuctoo.

20. Timbuctoo, the most famous of the Soudan cities, is situated about eight miles north of the Joliba, in latitude 17° 8′ north, and longitude 2° 58′ west. Cabra, its port, stands about five miles from the town, and is connected with the river by a narrow canal. From remote antiquity this city has been the meeting-place of many converging lines of traffic. It is the nearest point at which the traders from both the Mediterranean and Atlantic can strike after

crossing the Desert. Leo Africanus states that Timbuctoo was built by Mansa Suleiman, about the year 610 of the Hegira (A. D. 1214), and that it soon became the capital of a powerful state. But there is a strong reason to believe that either the Kupha or Nigeira Metropolis of Ptolemy previously occupied the site. Rulers, with the title of Mansa, governed Timbuctoo from 610 to 792, when the chiefs of Fez rendered it tributary, and from that time the communications of the Arabs with that country became more frequent. The Arab conquerors, however, allowed the native dynasty to remain on the throne. In the fifteenth century the Arab power declined, and a little later the importance of Timbuctoo diminished as a commercial entrepôt. About 1500 the Moorish supremacy was entirely overturned, and in 1670 it appears to have fallen under the dominion of the king of Bambarra. Since 1727 it has been governed by a negro ruler. The city is chiefly built of sun-dried brick, and has seven mosques. In the suburbs there are numerous straw huts of a conical form. The inhabitants are exclusively engaged in trade—their own lands producing nothing. They are represented as cleanly both in their persons and houses. Both negroes and Arabs are Mohammedan, and have several wives who are employed in menial offices. Merchandise is conveyed between Cabra and the city on asses and camels. Immediately north of Timbuctoo the sandy desert commences.

21. In the northwestern part of Soudan are the kingdoms of Kaarta and Ludamar. Kaarta lies partly within the mountain range which constitutes the boundary between Senegambia and Soudan, and Kassan, formerly an independent kingdom, but now united to Kaarta, is properly within Senegambia. The capital is Kemmo, and there are two large towns called Asamangatari and Somantari. The kingdom of Ludamar borders on the Desert, and consists of a succession of fertile and cultivated tracts and sandy deserts. The capital, Yarra, is of considerable extent. Other large places are Deena and Sampaka.

22. A large tract of Soudan extends along the southern edge of the Sahara, between Ludamar and Timbuctoo. Of this tract, the greater part belongs to the kingdom of Boroo, which appears to resemble Ludamar in productive powers, but is separated from the neighboring states by sandy deserts. Its capital, Walet, is said to be as large as Timbuctoo, and to carry on a very extensive trade in salt, which is brought from the great rock-salt mines of Shingarin and sent to Sansanding, Sego, and Yamina in Bambarra, where it is exchanged for corn and provisions.

23. The greater part of the hilly region of Central Soudan constituted at the beginning of the present century an integral part of the kingdom of Houssa. The most populous and best cultivated districts are those along the course of the Kowara and the northern districts between the 11th and 13th parallels.

24. Along the Kowara, from north to south, are Alyauri, Nyfi, and Fandah. Yauri, capital of Alyauri, is a place of considerable extent and very populous, and is surrounded by a wall upward of 20 miles in circuit. In this place saddles, cloth, and gunpowder are manufactured. Where Alyauri and Nyfi join one another is the basin of the river Mayarrow, which is extremely fertile and thickly inhabited. Tabra, Koolfu, Rajadawa, Womba, and Guari are large and important towns on this river. The capital of Nyfi is the town of the same name, which is known over all western Africa for its excellent cotton cloths. Rabba, also in Nyfi, on the Kowara, is the emporium of all the surrounding countries to a great distance, and several articles are brought to this place from Tripoli on the Mediterranean. Fandah, capital of the kingdom of Fandah, is situated near the banks of the river Chadda. It also has numerous and important manufactures.

25. In the middle districts of Central Soudan the only places of which any knowledge has been obtained are the countries of Zegzeg, Kano, Kashna, and Houssa proper. Zegzeg extends between latitudes 9° and 12° north, and longitudes 8° and 11° east. In this country is the town of Kuttup, near latitude 9° 40′ north, which comprises nearly 500 small villages, almost adjoining each other, and occupying nearly the whole of a vast and beautiful plain. A considerable traffic is carried on here in slaves and bullocks. Eggebee (latitude 10° 50′ north, and near longitude 9° east) is a very large and extremely neat town, surrounded with a high wall, and situated in the center of a fine and highly cultivated plain. North of Zegzeg is the country of Kano, the capital of which, having the same name, is said to be the most commercial town of central Africa. Baebaegie (latitude 11° 34′ north, and longitude 9° 13′ east) and Gerko, to the east of it, are also large trading towns. In the country of Kashna are the large towns Jaza, Ratah, and Kutri; but the largest is the capital, also called Kashna, which is an important commercial town. In Houssa proper, which lies west of Kashna, is the large town of Zirmie, and the capital Sakati or Sackatoo, which is built on the banks of the river Zirmie, an affluent of the Kowara. The houses are laid out in regular, well-built streets, and come close up to the walls, which are from 20 to 30 feet high, and pierced by 12 gates. The inhabitants are principally Fellátahs, and possess numerous slaves, of whom a considerable number are employed in manufacturing cotton stuffs and in tanning and iron work. The commerce of Sakati is important.

26. Nearly the whole of the alluvial plain of Central Soudan constitutes the kingdom of Bornou. It contains many towns, some of which are very populous. The capital, Kuka, is only a few miles distant from Lake Tchad. Angornou, the largest and most populous place in Bornou, is likewise only a few miles from the Tchad. It is the principal commercial mart of the country, and here caravans arriving from Fezzan or from Kano dispose of their merchandise. A few miles west from Angornou is New Birnie, the residence of the sultan. Farther south are the towns of Dugoa and Affagay. On the banks of the river Shary is Loggene, where much cotton cloth is made and dyed. On the banks of the river Yeou are the towns of Kabshari, Kukabonee, Bedeekarfi, and Katgum. Burwha, north of the mouth of the Yeou, and not far from Lake Tchad, is a well-fortified place.

27. Southward of Bornou is the kingdom of Mandara, which extends from latitudes 10° 30′ to 9° 30′ north. It is a rich, well-cultivated, and densely peopled country. The inhabitants are exclusively negroes, and are governed by a sovereign of their own race. The valleys of Mandara contain some considerable towns. Mira, the residence of the sultan, is a strongly fortified place.

[*Weights, Measures, and Moneys.*—Unknown; commerce is generally conducted by barter. Slaves, salt, etc., are current.]

SENEGAMBIA AND SIERRA LEONE.

1. SENEGAMBIA is a designation adopted to indicate a part of the western coast of northern Africa; but it has not always been applied to the same extent of country. Originally it was only used to denote the countries which lie between the Senegal and Gambia, from the names of which two rivers the term has been derived. At the present time it comprehends all the countries which are drained by the rivers whose mouths are found between the embouchure of the Senegal (16° 30′ north) and the island of Sherboro' (7° 30′ north). These countries may be regarded as separated into two unequal parts, the northern and larger of which may be called Senegambia Proper, and the southern and smaller part Sierra Leone.

SENEGAMBIA PROPER.

2. SENEGAMBIA is separated from Sierra Leone by a line drawn from Cape Verga east-northeast to the sources of the Rio Nuñez, and thence eastward to those of the Rio Grande and river Gambia. Toward the east it is supposed to comprehend all the countries drained by the numerous upper branches of the Senegal, and to extend to the high land which separates them from the countries drained by the Joliba. A continuous ridge of high land extends along the north side and close to the Ba Woolima or eastern branch of the Senegal from its source to its junction with the Ba Fing or western branch; and this ridge constitutes its northeastern boundary. Farther west the valley of the Senegal, which is bordered on the north by the Great Desert, is considered to be the most northern country belonging to Senegambia. The Atlantic Ocean washes its western shores, constituting a coast-line which probably exceeds a thousand miles in length. Inclosed within these limits the area is estimated at 200,000 square miles.

3. The valley of the lower Senegal consists properly of the bottom which extends along its course from the mouth of the river to Bakel. It is subject to inundations during the rainy season, and in some places spreads out to 15 or even 20 miles in breadth. As the subsoil consists of a light sand, which is covered with alluvial matter, it opposes little resistance to the rapid current, and hence the Senegal frequently divides its waters and forms arms which again re-unite. The whole bottom is of great fertility, and in its natural state is covered with forests.

4. Between the mouth of the Senegal and that of the Gambia lies Cape Verde (latitude 14° 40′ north), a wide projecting promontory. Its western extremity is a mass of rocks of moderate elevation and volcanic origin. In its character it greatly resembles the Cape Verde Islands, which are nearly 500 miles distant. The country between Cape Verde and the mouth of the Senegal greatly resembles that part of the Sahara which extends from that river northward to the Bay of Arguin. Along the sea there is a low sandy beach, and the country adjacent to the shores is a dead level, covered with fine loose sand, and destitute of vegetation. This flat, sterile tract occupies the whole coast to the distance of about two miles from the sea. At the back of it rises an unbroken ridge of sandy downs, which are likewise destitute of vegetation. East of these the low grounds, which in the wet season are covered with water, have a soil of great fertility. Southward of Cape Verde to the Gambia the low beach is covered with mangroves, and the coast-line is broken by several water-courses. For 30 or 40 miles inland the country rises gradually, and the whole tract in its natural state is covered with tall forest trees.

5. To the east of the countries hitherto named lies the table-land of the Jaloofs, which is of great extent, occupying the whole country between the Senegal and Gambia, or between 13° and 16° west longitude. A great part of this region is sterile, but there occurs nevertheless fertile tracts, generally hollows, which retain water after the subsidence of the rains. In these depressions the villages are situated, and their pastures feed large herds of cattle. Southeast of this table-land begins the higher country, which, though not immediately rising to mountains, consists of numerous hills and short ridges. Toward the source of the Faleme there occur extensive plains which are partly covered with woods and partly with jungles of bamboo haunted by elephants and lions.



AFRICAN LION.

6. The mountain region extends over the western portion, including all the countries situated in and between the numerous rivers which by their confluence form the Senegal. This region appears to be surrounded on the south, east, and north by a continued range of mountains. The inclosed region is occupied by rocky ridges, which consist almost entirely of iron-stone and slate, with a very thin covering. In the valleys, which in some parts are extensive, the soil is alluvial. On the south is a wilderness, which extends upward of 100 miles, from east to west, and is inhabited by wild beasts. Excellent iron is produced by the negroes from the mines of this section, and there are several places where gold is collected in considerable quantities.

7. The country situated immediately on the banks of the Gambia, as far as Pisania, consists of a level alluvial tract, extending about two miles from the river, subject to inundation, and a great part of it is swampy and covered with mangroves. At the back of this low tract the country rises to a moderate elevation. The soil is various, and though often sandy is fertile. The coast-line between Cape St. Mary, at the mouth of the Gambia, and Cape Verga is extremely low and intersected by numerous channels, forming islands, and the space between the Gambia and Nuñez is occupied by an archipelago of low inhabited islands, dangerous to navigation. This low archipelago constitutes the outer edge of a level and low country which extends to a great distance inland, and which is traversed by several large rivers which, dividing and reuniting repeatedly, form alluvial islands, and in some cases reach the sea by several channels.

8. Beyond this plain lies a more elevated country, constituting a kind of second terrace, with a slighly undulating surface. The whole of these tracts are rich beyond conception, and afford inexhaustible pasturage to large herds. The mountain range south of the Gambia begins a little west of 13° west longitude. The valleys in this district have a fertile soil.

9. Between the Gambia and Rio Grande the mountain ridges appear to approach the 13th meridian, but south of the latter they do not pass much west of the 14th. These mountains, which are called the Tangeri and the Babet mountains, are very little known, but their elevation is considerable. They are mostly bare, their surface consisting of iron-stone, grayish ashes, and yellow sand, and in some places exhibiting traces of volcanic action. The valleys are covered with large trees.

10. The table-land of Foota Jallon consists properly of a plain of considerable extent, surrounded by higher grounds and chiefly by lofty mountains. North and south it extends above 80 miles, and perhaps still more from east to west. The surface is diversified by gentle hills. In the mountains which inclose it on the south, and which appear to be connected with the Kong Mountains, are the sources of the Ba Fing, the principal branch of the Senegal, and the waters issuing from them run a thousand miles before reaching the sea. This river forms many rapids in its course. Oranges, papaw trees, and bananas are abundant, and there are many large forest trees. Rice is the staple of cultivation, and for the growth of this the plain, being converted into a temporary lake at the end of the wet season, is very favorable.

11. Senegambia has long been noted for the heat to which it is subject all the year round. But it does not appear to have a greater degree of heat than other countries situated in the same latitudes, except those tracts which lie along the banks of the Senegal, and consequently in the vicinity of the Sahara. At the French settlement of Bakel, about 300 miles from the sea, the thermometer occasionally rises to 110° Fahr. in April and May, which are the hottest months, and sinks in December to 56°. In the parts of Senegambia which are remote from the coasts, the hottest parts of the year are during the last months of the dry season and at the beginning of the rains (May and June); but on the coast the rains immediately depress the temperature several degrees. The rains in July and August are very heavy, and are frequently accompanied by violent winds and thunder. Tornadoes also occur at the beginning and ending of the rains. Toward the end of November the winds change to the northeast and produce an immediate change in the surface of the country. Coming over the Desert they lose all their moisture, and in their passage dry up vegetation and parch everything exposed to their action. During the long rainy season the air is loaded with moisture.

12. The indigenes are of the negro race; but the Moors have entered Senegambia and mixed with the most populous tribes. These are the Foulahs, Jaloofs, Mandingoes, and Serrawollies. They occupy the more elevated parts of the country, and leave to the other minor tribes only the low tract which extends along the sea. The nations among which the Moors have settled have partly embraced the Mohammedan religion. The structure of their body differs also more or less from that of the true negro race. The inhabitants of Bondoo, who are a mixture of all the above four nations, are described as of middle size, well-made, and very active; their skin of a light copper color, and their faces of a form approaching nearer the Caucasian than any other native tribes of western Africa. The different tribes speak different languages, but the Foulah and Mandingo are understood by all of them. In civilization and its pursuits they are far in advance of the black tribes, and education is general among the Mohammedans. The smaller negro states have remained in a low state of civil life. They cultivate some rice, and in their habits are ferocious, cruel, and treacherous; nor have they any settled governments. The larger tribes, however, have kings and a nobility, and maintain regular civil establishments. All these advanced nations keep a considerable number of slaves; and one, Footatoro, is a kind of theocratic republic.



NATIVES OF SENEGAMBIA.

1. Mandingo of Wolli.
2. Griot of Bondoo.
3. Female Griot.
4. Foulah woman.

13. The whole country along the sea, from the Senegal to Cape Verde, and as far inland as the western declivity of the table-land of the Jaloofs, is subject to the king or dámel of Kayor, who resides in the town of Macaye. The inhabitants are Jaloofs. Within the boundary of this state is the town of Cogue, which is a commercial place with 5,000 inhabitants. The numerous villages on Cape Verde constitute an aristocratic republic, governed by a senate. Between Cape Verde and the Gambia are the small states of Baol, Sin, and Barra. The French have a commercial establishment at the town of Albreda, the residence of the king of Barra. East of Barra is the small state of Badiboo. North of these is the state of Salum, which extends westward to the sea. The capital, Cahore, is built on the Joombas, and small vessels ascend as far as that town. Among other small states between the Senegal and Gambia are Yanimaroo, Katoba, Wooli, Walo, Burba, Jaloof, and Footatoro. The last-named state, which is more extensive than most of the others, is divided among seven chiefs, who form a council and elect a marabout or priest for their king, who, however, reigns only during their pleasure, and can do nothing without their consent. The capital of Footatoro is Chuloigne. Sedo and Kanel are rather large towns. The inhabitants are chiefly Foulahs.

14. In the mountain region, and contiguous to the western and southern banks of the Senegal, is Galam. It is densely inhabited, and contains many large towns inhabited by Serrawollies. Between Galam and Wooli, on the Gambia, is Bondoo, the most powerful state of these parts. The inhabitants are a mixture of Jaloofs, Foulahs, Serrawollies, and Mandingoes, and are much occupied in trade and manufactures. Their most important places are Boolibany and Fatteconda. East of Bondoo and south of Kajaaga is Bambouk, which is noted for its gold mines. The other states, which lie east and south, in the most elevated part of the mountain region, are little known. The most extensive are—Foolado, the ancient country of the Foulahs, with the towns of Koeena, Keminoom, and Bangassi; Mandingo, the native country of the Mandingoes, with the towns of Sibidooloo and Kamalia; Jallon Kadoo, the uninhabited wilderness which extends between the sources of several branches of the Senegal; Konkodoo, on the Ba Fing, which has some rich gold mines, with the town of Konkroma; Satadoo, with the capital of the same name, and Dentilla, with the towns of Baniserile and Kirwani.

15. On the Gambia are the small states of Neola, with the town of Tambacunda, and Tenda, with the town of Jallacotta. It does not appear that there is any large kingdom or state south of the Gambia with the exception of the Foota Jallon. The principal seat of the power of this state is the well-cultivated and populous plains of the table-land of Foota Jallon, of which Timbo, not far from the sources of the Senegal, is capital. In the country which extends between Foota Jallon and the coast each village appears to have a chief, but no political connection subsists among the villages.

16. The European settlements in Senegambia are strictly commercial. The settlers have not acquired the property of any land except the place on which they have settled, and no cultivation is carried on by them or their people except at a few spots which are rather gardens than plantations. Each of the three European nations that have formed establishments have taken possession, as it were, of one of the three large rivers—the French of the Senegal, the English of the Gambia, and the Portuguese of the Rio Grande. Each has built a fortress on an island not far from the mouth of their respective rivers, which serves as a safe place of deposit for goods which are imported, and from which the productions of the country are shipped. The merchants set out from these places in large river boats with their goods, at certain seasons of the year, and ascend the rivers as far as they are navigable, stopping at certain points to meet the native traders. Nearly all the articles of commerce which are exported from the European settlements are brought from the interior by small caravans or cafilas, which sometimes proceed to the coast, but generally halt at certain places where commercial establishments are found.

17. The principal French settlement is St. Louis, a town of 15,000 inhabitants, of whom about 800 are Europeans. It is built on a sandy island, two miles long and a quarter of a mile wide, about five miles from the mouth of the Senegal. Only vessels drawing less than 12 feet can sail up to the town, as there is a bar across the entrance to the river. The French have also two small fortresses on the Senegal; one at Podhor, on the island Morfil, and the other at Bakel, not far from the confluence of the Faleme. Between Podhor and St. Louis there are several places to which the Moors bring at certain seasons the gum which they collect in the mimosa forests of the southwestern districts of the Sahara. The most frequented are the Escale-du-Désert and the Escale-du-Coq or Braknas. The island of Goree, near Cape Verde is also occupied by the French, and they have another establishment at the mouth of the river Casamanza, which enters the sea between the Gambia and the Rio Grande.

18. The English settlements are established at intervals along both banks of the Gambia for many miles into the interior. The whole of these are included under the title of the Gambia Colony. The government has its seat at Bathurst. The population in 1851 was 5,693, of whom 191 were whites and 5,502 colored; and of the total 82 are returned as engaged in agriculture, 330 in manufactures, and 278 in commerce. The distribution of this population was thus—St. Mary's Island, 4,262; MacCarthy's Island, 1,171; Barra Point, 206; and Cape St. Mary's, 54. The exports from Gambia are African teak, ship-timbers, ground-nuts, ivory, hides, gold, palm-oil, gutta-percha, gum-senegal, and beeswax. The value of exports in 1852 was £217,856. In the same year the imports amounted to £110,174. The value of ground-nuts exported was £186,404, and hence these may be considered as the staple of the Colony. They are cultivated near the Gambia, and are sent chiefly to France for the manufacture of oil. Their export has risen from 47 tons in 1835 to 11,094 in 1852. The principal establishments on the Gambia are at Bathurst, on the island of St. Mary, at the mouth of the river, whence the produce of the country is shipped, and at MacCarthy's Island. The town of Bathurst has many good and substantial government buildings, as well as numerous convenient warehouses and dwellings. The dwellings generally, however, are rude African huts. The European residents average only about 50, but the number of seamen and others visiting the town every year is little short of 1,200. Near Cape St. Mary's is the new villa of Clifton. MacCarthy's Island is 180 miles up the river, which to this point is navigable for vessels of 50 tons. Fort George, on this island, is in latitude 13° 33′ north, and longitude 14° 45′ west. Like St. Mary's Island, it is little above sea-level, and both are, in a great measure, covered with water during the rainy season. Tropical remittent fevers occur at both places. The Wesleyans have schools at Bathurst, at MacCarthy's Island, and at Barra, opposite Bathurst, and the Roman Catholics have one at Bathurst under the charge of the Sisters of Charity.

19. The Portuguese settlements are dispersed along the banks of the different arms of the Rio Grande and on the Casamanza. The principal settlement is Bissao, a well-built fort and town of 3,000 inhabitants, on a large and fertile island of the Jeba Branch of the Rio Grande. It has an excellent and spacious harbor. Higher up, on the same branch, is Jeba, with 1,000 inhabitants. On the southern branch is Bolula, a mercantile establishment, and on the northern or Cacheo branch the town of Cacheo, a considerable place with a harbor, which, however, is accessible only to vessels drawing 10 feet. In the country of the Feloops, between the Cacheo branch and the Gambia, the Portuguese have settlements, as at Zinghinchor and

Mahia Kakonda on the Casamanza, and at Vintang, on a small river which falls into the Gambia. To these places the natives bring their produce, the greater part of which is shipped to Europe from Bissao and Cacheo. Many Portuguese have settled in this country as agriculturists, and have married black women.

20. A considerable commerce is also carried on between Senegambia and the countries farther east. The principal articles of this trade are salt, slaves, and gold. A large portion of the gold collected in the countries situated on the banks of the upper branches of the Senegal goes to Timbuctoo, and thence to the countries on the south of the Mediterranean.

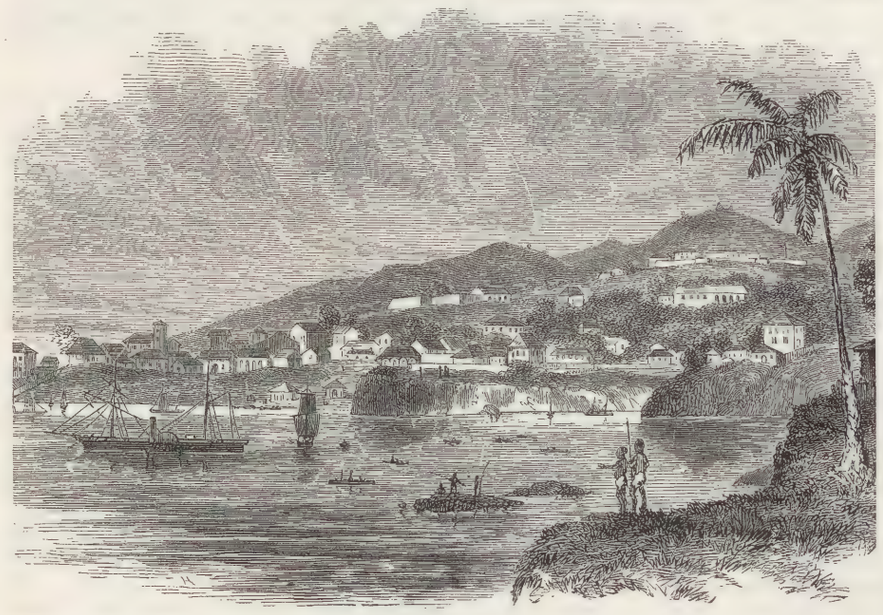
21. Senegambia was visited by the Carthaginian general Hanno, but all knowledge of it was afterward lost. The Portuguese re-discovered the country in the fifteenth century and planted therein several colonies, which were neglected after the discovery of India. The French and English next tried to get a footing there—the first acquired Senegal about 1675, and the latter Gambia in 1686. They formed settlements at the mouths of these rivers, and their merchants began to trade on the banks, forming depôts for their goods at certain places.

22. In 1788 an association was formed in London for the promotion of African discovery. The year before, the settlement at Sierra Leone had been formed. Since this period the interior has been explored by several travelers, among whom may be named Houghton in 1790–91, Winterbottom in 1794, and Mungo Park in 1795–97 and 1805. After the peace of 1814 the British sent out an expedition for the purpose of opening a trade between the countries on the Joliba and the settlements on the Gambia. Though this expedition did not accomplish its object, it traversed a great part of Senegambia in different directions (between 1817 and 1820), and collected much interesting information.

23. Denham and Clapperton succeeded in penetrating from Tripoli to Bornou, whence they advanced west to Sakatoo. Before these journeys were accomplished, Laing set out (1823) from Sierra Leone and reached the town of Timbo. The French also commenced to explore these countries, and by connecting the geographical details of their own and the observations of others, furnished a tolerably correct topographical account.

SIERRA LEONE.

24. Sierra Leone is the name of a cape in latitude 8° 30′ north, and of a British Colony established on a peninsula of which the cape forms the northwestern extremity. This name, however, has a more extended signification, and now comprehends those parts of western



SIERRA LEONE.

Africa which are watered by the rivers that fall into the Atlantic between Cape Verga, in latitude 10° 12′, and Sherboro' Island, in 7° 30′ north.

25. The coast, except at the points where the mountains come down to the sea and form headlands, is for the most part low and flat, and covered with mangroves; and at the embouchures of the rivers are formed numerous islands. The beach is beaten by heavy surfs, and but few places afford good landing. Many of the islands are inhabited and possess valuable fisheries. The interior of the country is very varied. From Cape Verga inland a tract of high land, broken by ravines and narrow valleys, and nowhere more than 1,000 feet high, extends north-by-east and then east to the table-land of Foota Jallon, near 11° west. Immediately within this northern boundary the country is still very little known. In general it is mountainous.

26. From 9° west a gently undulating tract spreads westward for 80 or 90 miles, with a general elevation of 300 feet above the sea. Extensive vales and fertile meadows, belted with strips of wood, are occasionally diversified by hills or broken by ravines, and furrowed by numerous rivulets sunk far below the surface. The soil of the valleys is rich, but some of the lower depressions become swamps in the rainy season. This level region is bounded on the west by a mountain range, which is broken in several places by rivers flowing westward through spacious valleys. The hills, in a few places bare from their steepness, are generally belted round the base with camwood-trees, and on their higher parts dotted to their summits with palm-trees and clothed with grass. The pine-apple is the prevailing fruit.

27. Between this hilly country and the sea lies the main part of the coast of Sierra Leone, forming a plain of about 100 miles in breadth. Rice is here the staple. Over all the country cattle and goats are numerous, and poultry abundant. Fish abound on all the coasts and in the rivers. The wild animals are the elephant, buffalo, various species of antelope, monkeys (of which the chimpanzee is the most remarkable), leopards, and wolves.

28. The peninsula of Sierra Leone, which chiefly constitutes the territory of the Colony, is 25 miles long and 12 miles wide. It is bounded north by Sierra Leone River, east by Bunce River and Calmont Creek, south by Calmont Creek and Yawrey Bay, and west by the Atlantic. The interior is an elevated region of uneven surface, which rises from 800 to 1,000 feet above the sea, and is overtopped by conical peaks 2,000 and 3,000 feet high. The whole is covered with a good soil, generally wooded, and producing spontaneously yams, plantains, Indian corn, etc. The fruits are the cocoa-nut, the baobab, banana, orange, pine-apple, guava, lime, papaw. Sugar, indigo, and cotton have been introduced, and grow well.

29. Of the rivers of Sierra Leone, the most northern is the Pongas, which reaches the sea on both sides of 10° north by four arms; and there are several considerable rivers between Cape Tumbo and the estuary of the Rokelle or river of Sierra Leone. Some of these, particularly the Mellicuri and Searcies, are visited by vessels for camwood, teak-timber, and ground-nuts. But the most important river of the country is the Rokelle, which rises in the mountains separating Sierra Leone from Soudan, and runs first south and then southwest, until it approaches within 30 miles of the sea, when it spreads out into a wide estuary, which, opposite Freetown, is seven miles in width, and constituting the harbor of the Colony. At the close of the dry season the Rokelle is navigable for boats only 50 miles from its estuary, but in all other seasons to a much greater distance. The course of the Karamanka, which falls into Yawrey Bay, is generally parallel to that of the Rokelle, and sometimes only 10 miles from it.

30. The geology of the country is little known. The Sierra Leone Mountains, the Banam Islands, and the Isles de Loss are supposed to be of volcanic origin. The main section of the interior is a vast alluvial plain, through which basaltic rocks protrude in many places. Iron is worked in the most hilly parts of the interior. The natives have much gold, but it is brought from the countries on the upper Joliba. Salt is made along the low shores. The climate is hot and moist, and productive of a redundant vegetation. The seasons are only demarked by their comparative abundance of rain; and the year round disease floats in the atmosphere. There is, however, a pretty regular succession of land and sea breezes; but not enjoying the advantages arising from the trade winds, the climate is less supportable to foreigners than that of the West Indies. Indeed, Sierra Leone, from its unhealthfulness, has long been looked upon as the grave of Europeans; but the interior, where the rains are less abundant, is comparatively salubrious, and even in the low coast region there is great variation on this point in different years.

31. Five different tribes inhabit the coast, all belonging to the negro race, but differing in degrees of civilization. The country north of the Kaba is occupied by Mandingoes, whose chief town is Fouricaria. Between this river and the Rokelle are the Timanees, near the sea, and the Limba, farther inland. South of the Rokelle are the Kooranko, and the most easterly portion is occupied by the Soolima. It is probable there are other tribes in those parts of the country which have not yet been visited by foreigners. The Mandingoes, who are Mohammedans, have made some progress in civilization, and are distinguished by their activity and restlessness. The Timanees are governed by kings, and cultivate the ground, though with less skill than their neighbors. They are docile, and easily accommodate themselves to European habits. None have embraced either Mohammedanism or Christianity. Their towns are Kambia, Porto-Logo, Macabele, and Ma Yosso. The country of the Limba is still little known. The Kooranko occupy the country extending east to the banks of the Joliba. In language and costume they closely resemble the Mandingoes, but they are neither so handsome nor so intelligent. The manufacture of cloth is general among them. The Kooranko country contains the towns of Seemeva, Kolakonka, and Kamato. The Soolima, who occupy the country to the Foota Jallon, are described as muscular, and short in stature. Their capital is Falaba. Other towns of the interior are Sangoora, Semba, Mousaiah, and Konkodoogore.

32. The population of the Colony in 1851 was 44,501. It included individuals from as many as 100 African tribes; while the inhabitants of European origin scarcely numbered 100 in all. The affairs of the Colony are administered by a governor and council appointed by the crown. The revenue is derived from customs duties and local taxation. In 1854 it amounted to £22,003, and the expenditures were £21,672. Extensive provisions have been made for education, chiefly by the Church Missionary and Wesleyan societies. The former has a grammar school and a female institution at Freetown, and near that town the Fourah Bay Institution, for general education and the training of teachers and ministers. The Wesleyans have also a training school at King Tom's Point, in Freetown. These societies have also schools in the villages and many parts of the rural districts.

33. The products of the Colony are various and valuable, including teak-timber, camwood, ginger, pepper, palm-oil, nuts, gum-copal, ivory, etc. In 1854 the value exported was £154,126. The chief imports are Indian goods, cotton manufactures, arms, ammunition, hardware, beads, spirits, ale, and wine from Great Britain, and tobacco and cotton goods from the United States. In 1854 the value of goods imported amounted to £110,812. The fisheries of the Banam Islands and the Isles de Loss employ from 150 to 200 boats and canoes, and from 1,000 to 1,500 men.

34. Freetown, the capital, stands on the north side of the peninsula, on the left bank of the estuary of the Rokelle, five miles from the sea, and in latitude 8° 29′ north, and longitude 13° 9′ west. It is built on an inclined plane at the foot of some hills, on which are the governor's residence, Fort Thornton, the barracks, and some other public buildings. It is 50 feet above sea-level, and is regularly laid out in fine, wide streets, thickly interspersed with orange, lime, banana, and cocoa-nut trees. Many of the houses are commodious stone buildings. Population 16,000. The navigable entrance of the river is narrow, and the river can only be entered with a sea-breeze. Two miles east is the village of Kissy, and six miles south, at the base of Sugar-Loaf Hill, is Regent's Town, and between the latter and Freetown, Gloucester. There are many other villages in the Colony, with populations varying from 100 to nearly 2,000 inhabitants.

35. The British Colony of Sierra Leone was established in 1787 by some philanthropists, whose design was to show that colonial productions could be obtained without slave labor.

In that year 470 negroes, then living in a state of destitution in London, were removed to it; and in 1790 their number was increased by 1,196 others who had been settled in Nova Scotia. Ten years later 550 Maroons were transported from Jamaica, and in 1819, when a black regiment in the West Indies was disbanded, 1,222 black soldiers and their families were deported. Since the abolition of the slave trade in 1807, the slaves captured by the British cruisers have been settled in the Colony, and the population has thus so much been increased that in 1820 it amounted to 12,000, and in 1845 to about 44,000, since which time it has been nearly stationary, settlement and emigration having been nearly balanced.

[*Weights, Measures, and Moneys.*—The commercial denominations and values are those of the colonizing nations—France, England, and Portugal in their respective possessions. Of those of the native states we have no information; but it is notorious that they have no coined money, and that salt, iron, cowries, etc., are the usual substitutes for money.]

COAST OF GUINEA.

1. Guinea is an extensive country of western Africa, lying in an east-and-west position between the Kong Mountains and the Gulf of Guinea, and reaching from the confines of Sierra Leone to the old Calabar River, a distance of nearly 1,500 miles, with an average width of 220 to 250 miles. The area may be computed at 360,000 square miles. The countries along the coast are known to geographers under the names of the Grain Coast, Ivory Coast, Gold Coast, Slave Coast, and Benin.

2. The "Grain Coast" extends westward from Cape Palmas to Sierra Leone, and is now occupied by the American colony of Liberia. The coast is mostly low, but the highland which occupies nearly the whole space between the Gulf of Guinea and the Sahara advances in some places to the sea, forming headlands. The interior is a succession of mountain ridges and valleys; the mountains wooded and the valleys wide and fertile. The country appears to be divided into three kingdoms. The most western is the kingdom of Cape Mount, which extends on both sides of Cape Mesurado, and comprehends a coast of about 160 miles, reaching more than 100 miles inland. Its capital, Koseco or Koseeo, is said to have a population of 10,000. The middle coast is occupied by the kingdom of Sanguin, from which large quantities of palm-oil are obtained, and in which are the principal Liberian settlements. Its chief port is Bassa. The eastern coast is chiefly occupied by the Grand Sesters. The interior is under the sovereignty of the Mandingoes.

3. The "Ivory Coast" occupies the countries between Cape Palmas and Cape Tres Puntes or Three Points, a distance of nearly 400 miles. In this part the highland of the interior is divided from the beach by a low tract about 10 or 12 miles wide. It is inhabited by a number of small, and, for the most part, independent negro tribes. Near Cape Palmas is a harbor formed by a reef, which is the only spacious and secure one on this part of the coast. The inhabitants of the coast are of the Quaqua race; the interior is possessed by Foulah tribes.

4. The "Gold Coast" extends east to Cape St. Paul and the Volta River. The country is generally undulating and sometimes hilly—the hills covered with shrubs and timber of small growth. The coast, though rarely high, is rocky and bold; and the whole being but five degrees north of the equator, is considered one of the hottest countries in the world.

5. In the interior is the powerful kingdom of Ashantee, on which most of the small states along the coast are dependent. It extends back to the Kong Mountains. The inhabitants are negroes, and have made some advances in civilization. The government is a despotism, partially controlled by an aristocracy. Besides the negroes there are large numbers of Moors, professing Islamism, forming a very influential body wherever they are established. The manufactures of cloth, earthenware, and leather are carried on with skill, and the Ashantees also work in iron; but the art in which they excel is working in gold, which is found in large quantities both in mines and washings. The produce of the country is sent both to the coast and the interior—the gold being chiefly carried away to Jenné and Timbuctoo by the traders. The capital of the country is Komassi (in latitude 6° 51′ north, and longitude 2° 16′ west). It stands on the side of a large rocky hill of ironstone, and is completely surrounded by a half-stagnant stream or marsh, varying from 50 to 100 feet in width. The town is an oblong nearly four miles in circuit, not including a suburb or back town, half a mile distant. The streets are planned at right angles, but are merely ranges of fields bordered with rows of houses. The king's palace stands in a long, wide street, which runs through the center of the town, and is inclosed by a high wall. The population does not exceed 15,000 to 20,000, but during some of the great festivals it is swelled to 100,000.

6. Good roads lead from the capital in every direction, and along these are the principal towns. Among them may be named—Dwabin, the capital of a petty kingdom, in which reigns a tributary king, the descendant of one of the founders of the empire; Mankarno, the capital of the Fantees; Boossooa, the capital of Ahanta; Dankaira, the capital of the province of that name; Kickawheri, in the kingdom of Assin; Koranza, capital of the kingdom so-called, whose inhabitants are said to be the most civilized of the Ashantees; Bontako, the capital of Gaman; Salagha, the capital of Inta, which lies on the left bank of the Volta, and which is one of the principal seats of the commerce of the kingdom with Soudan; Yahndi, the capital of Dagomba, which kingdom extends to the north of the Kong Mountains, and is only tributary to Ashantee. This town, said to be larger than Komassi, is the seat of considerable trade, and the residence of an oracle much celebrated among the negroes, though the inhabitants are chiefly Mohammedan, as is also their king.

7. There are also several villages on the coast, but none of them have harbors, and are of little consideration. The coast, however, with the exception of these few sea-side towns, is claimed by Great Britain, which has here the settlements of Dixcove, Accra, Christianborg, Annamaboo, and Cape Coast Castle.

8. The "Slave Coast" begins on the west at the Volta, which empties itself into the Gulf of Guinea near the meridian of Greenwich. It extends eastward to the neighborhood of the river Benin, a distance of more than 400 miles along the sea-shore. The Volta, which comes down from a great distance, is a broad river in the interior, but toward its mouth it divides into several branches, and forms a kind of delta. The shores of this coast are flat and low, and partly rendered inaccessible by sand-banks. They are covered by extensive salt-marshes and numerous lagoons, traversed by several rivers, among which the Lagos is the most considerable. The plain extends inland 80 or 100 miles; it is fertile, open, and level, exhibiting large savannahs covered with high grass, and in some parts thickly wooded. Farther inland where the ground rises, it is covered with extensive and thick forests. In the rainy season, however, the low country is converted into a swamp. The whole plain, with the mountain region extending north of it, seems to be divided among the kingdoms of Dahomey, Ardrah, and Lagos.

9. Dahomey, once the most powerful negro kingdom of the Slave Coast, extends between the sea and the Kong Mountains. The population is now estimated at less than 250,000. Its capital is Abomey (latitude 7° 59′ north, and longitude 1° 20′ east), which contains about 30,000 inhabitants. It is about eight miles in circuit, surrounded by a ditch, and entered by six gates. In the town are several batteries. Ordinary business is carried on in the market-places. The king has three palaces, all surrounded by high red clay walls, inclosing large spaces for parks and gardens. Within the walls there is much waste lands, and some farms under cultivation. The principal port is Whydah; and along the coast are Lagos, Porto-Novo, Badagry, the Papoes, and the Nert, all of which have petty kings of their own. Dahomey was formerly one of the principal seats of the slave trade, from which source the king derived the greater portion of his revenue. The government is an absolute despotism.

10. The little kingdom of Ardrah extends east of Dahomey, and comprehends only a portion of the plain. Its capital, Ardrah (latitude 6° 26′ north), is built on the banks of a lake, and contains a large number of inhabitants. Its port is Porto-Novo.

11. The kingdom of Lagos occupies the countries extending on both sides of the river Lagos. In its territories are the populous towns of Lagos and Badagry. But the king of Lagos is dependent on the king of Yarriba, whose dominions extend over the whole breadth of the Kong Mountains to the banks of the river Kowara, and along that river to latitude 10° north.

12. East of Lagos is the kingdom of Benin, which extends along the low and swampy banks of the river and Bight of Benin and far into the interior. The country is very populous, and the capital, Benin, is said to have more than 15,000 inhabitants; but though the residence of the king, it is, like most of the towns in these parts, a mere collection of thatched clay huts. The king's palace is of great extent, including several squares, long galleries, and ranges of state apartments, but it has no architectural pretensions. The town is clean and orderly and a place of great trade, being a center for the exchange of ivory, palm-oil, cattle, sheep, etc., for European goods. It was formerly a famous slave-market. Along the river and in the interior there are several other populous towns.

13. The country about the delta of the Kowara is little known. Its most southern point is Cape Formosa. The principal places shown on the maps in this region are Ossamare, Ibu, etc., on the main Kowara, and Bonny on the Bonny River, an arm of the Kowara.

REPUBLIC OF LIBERIA.

14. Liberia occupies the whole of the Grain Coast from Sherboro' River (latitude 7° 23′ north, and longitude 12° 31′ west) to Cavalla River (latitude 4° 20′ north, and longitude 7° 30′ west), east of Cape Palmas, and extends back to the Kong Mountains. The settlements, however, do not reach more than 30 to 50 miles inland; and though the claim covers about 100,000 square miles, the present occupancy is not more than 18,000 to 20,000.

15. The coast has a general direction northwest and southeast, and is broken by several inlets, of which those formed by Cape Mount, Cape Mesurado, and Bassa Cove are of much value as harbors. The greater part is low and sandy or marshy, but about the capes the shore is considerably elevated, and in the southeast bold and rocky. From the coast inland the land rises for the most part gradually toward the interior, and at 20 to 30 miles is a succession of hills, covered, like a large portion of the lower country, with forests, and farther inland rising into mountain ridges, divided by wide and fertile valleys.

16. Rivers are numerous, and some of them good-sized streams; but all have their mouths obstructed, and some entirely closed, by sand-bars, and, owing to the prevalence of rapids, none appear to be navigable far inland. The chief river is the St. Paul, which falls into the sea by Cape Mesurado. At its mouth there is seven feet of water on the bar at low tide, and at 20 miles up it is half a mile wide. It is a considerable river, flows through an extremely fertile valley, and has along its banks numerous native villages and Liberian settlements; but from obstructions it is not navigable for more than 18 miles for vessels that can cross the bar. The other most important streams are the St. John, which reaches the sea at Bassa Cove; the Junk, which flows between the St. Paul and St. John; Cape Mount River, falling into the sea opposite that cape, and the Grand Sesters, east of the St. John. The last-named has 14 feet water over its bar, and deepens inside to four fathoms.

17. The climate is hot, and in the rainy season moist, but never oppressive. The soil is usually fertile; and the hills and plains are covered with a verdure that never fails. In no other part of the world is vegetation more redundant, and where cultivation has been commenced, the earth yields bounteous returns. Cotton, indigo, and sugar-cane are spontaneous growths, and the same may be said of numerous varieties of fruits; while rice, Indian corn,

Guinea corn, millet, coffee, etc., are easily cultivated. There is no dreary winter here, but nature is constantly renewing herself and pouring her treasures the year round into the lap of the industrious agriculturist. Cattle, swine, fowl, ducks, goats, and sheep thrive without care, and even the natives, without implements or skill, and with very little labor, obtain in abundance all the necessaries of life. The forests supply a great variety of timber trees adapted for building purposes, and also woods suitable for cabinet-work and many useful for dyeing. Of the dye-woods, camwood appears to be the most extensive growth, and prevails over immense tracts. Little is known regarding the mineral productions, but iron and building stone are abundant, and there is plenty of clay for bricks. Lime has hitherto been obtained from shells.



MONROVIA.

18. There are at the present time about 80,000 or 100,000 persons subject to the Liberian authority, and perhaps double these numbers of interior natives, more or less intimately connected with the Republic. Of the whole number less than 10,000 are immigrants. The government is a constitutional democracy, and almost a copy of that of the United States, excepting that it prohibits slavery in any form. The fundamental law makes nearly all offices elective, and gives suffrage to every male citizen 21 years of age and possessed of real estate. Immigrants immediately on landing acquire the franchise and receive a grant of five acres of land. The legislature is vested in a senate of six members, elected from the counties, and a house of representatives of 28 members, elected according to a ratio of the population. The chief executive is vested in a president, elected for two years. The judiciary consists of a supreme court and district courts. The revenue, chiefly derived from import duties, amounted, for the year ending 30th Sept., 1857, to $47,556, and the expenditures to $47,048. The Republic has a small navy, consisting of the schooner Lark presented by the Queen of England, and the Hirondelle presented by the French Emperor.

19. Among religious sects the Baptists and Methodists are most numerous. Together they have from 35 to 40 churches, mostly built of stone or brick, and each has attached to it a Sabbath-school. A few natives are also in communion with these churches. Schools are provided for all the children of citizens. In Monrovia there are three high schools; and a college is in contemplation to be located on St. Paul's River. Libraries have also been established; and a very respectably conducted paper, the Liberia Herald, has been issued regularly for 20 years.

20. The industry of the Colony is chiefly devoted to agriculture, but there are, nevertheless, many who are engaged in the mechanic arts and ordinary trades. Labor, however, is less abundant than desirable; but as it receives accessions from the United States or from the interior, there is every prospect of a rapid development of the country. Sugar, cotton, and indigo will then become staples of agriculture, and mechanical pursuits be more generally adopted. At present, besides fruits, vegetables, and salted meats supplied to shipping calling at the ports, the chief articles of production and export are palm-oil, dye-woods, ivory, and rice, with some gold, tortoise-shell, gums, hides, wax, ground-nuts, ginger, and red pepper. Of these the great bulk is brought from the interior. The imports into the Colony consist chiefly of cotton goods, gunpowder, spirits, provisions, tobacco, etc. This trade has been rapidly increasing, and has already become important. In 1856 the value of exports was 1,041,325 francs and of imports 829,609 francs. Liberia has also a considerable coasting trade, carried on by schooners belonging to the country. Emigrant vessels sail at stated periods from the United States.

21. The actually occupied territory of the Republic is divided into the counties of Mesurado, Bassa, and Sinou. The chief town is Monrovia, the capital, on Cape Mesurado (latitude 6° 19′ north, and longitude 10° 46′ west), a busy sea-port town and place of trade. It contains about 2,000 inhabitants. The other towns and settlements along the coast are Marshall, at the mouth of Junk River; Edina and Grand Bassa, at the mouth and on opposite sides of St. John River, in Bassa Cove; Greenville, on the Sinou, etc. The chief inland towns and settlements are Caldwell, Louisiana, and Millsburg on the St. Paul, and Bexley and Cresson on the St. John.

22. Along the coast are also several factories, chiefly for the trade in camwood, belonging to Liberians, and some to British and American merchants; and both along the coast and inland are numerous towns and villages, some of them, as Grand Sesters and Great Niffou, of considerable size. The slave marts, once so numerous on this coast, have all been broken up by the energy of the government.

23. Liberia owes its origin to the efforts of the American Colonization Society, formed in 1816. The first settlement was made on Sherboro' Island, but the colonists, after much suffering, were removed to Sierra Leone. A second party was, however, sent out who established themselves, early in 1822, on the site of the present town of Monrovia; and in a comparatively few years so increased that, in 1847, they were competent and powerful enough to support an independent government. The society now abandoned all political jurisdiction, and on the 24th of August, of the same year, the flag of the "Independent Republic of Liberia" was hoisted with much ceremony. The Republic was recognized by England as an independent state soon after its declaration, and has since been recognized by France, Belgium, Prussia, Brazil, Lubec, Hamburg, and Bremen. The United States have taken cognizance of it so far as to appoint a commercial agent.

MARYLAND-IN-LIBERIA.

24. On Cape Palmas, the southeastern extremity of Liberia, is established the Colony of Maryland-in-Liberia. The settlers have been sent out chiefly by the Colonization Society of Maryland, in America. The settlement was formed in 1834. It is now an independent Republic, with a governor and legislature, and appears to be in a tolerably flourishing condition. The State of Maryland assists the Society in its operations by an annual grant of $20,000. Harper, the chief town, is built on Cape Palmas, and contains about 700 inhabitants. Near it is the village of Latrobe, between which and the capital is a good road. Besides these there are several other settlements and native villages. The Colony stretches 150 miles, from Grand Sesters on the west to Tahoo on the east. The country generally resembles Liberia, and is capable of supporting an immense population. At present there are not above 1,000 immigrants within the territory. Its foreign commerce, however, is increasing. Trade with the interior is also flourishing, but is injuriously affected by trading vessels, which carry on their traffic along the shores, almost within sight of Cape Palmas. This Colony is reported to have joined Liberia in 1857, and to be now a county thereof.

GOLD COAST COLONY.

25. Gold Coast Colony is the name of a series of British settlements on the Gold Coast, but of which the boundary is not exactly determined. In 1853, however, the extent of these territories and of the native states under British protection was estimated at 8,000 square miles. The British stations are Cape Coast Castle, Accra, Annamaboo, Dixcove, etc.

26. Cape Coast Castle, the principal fortress, is situated in latitude 5° 5′ north, and 1° 12′ west, and covers a considerable area. In it are apartments for the officers, and barracks for the private soldiers; and there are several spacious warehouses. It is built on a rock close



CAPE COAST CASTLE.

to the sea. Near it are the small outposts Fort William and Fort Victoria. The town, which is behind the fortress, has about 10,000 inhabitants, of whom about 20 are Europeans. Within the castle is a government school, which, in 1852, was attended by 153 boys.

27. Fort St. James, at Accra (latitude 5° 32′ north, and longitude 0° 12′ west), is occupied by a small garrison. The native population numbers about 3,000 souls. The station is regarded as the most healthy on the coast. In the vicinity of Accra is the Dutch fort Crevecœur; and about three miles east is the fort of Christianborg, and 30 miles northeast that of Fredensborg, both recently purchased of the Danes by the British.

28. Annamaboo (latitude 5° 5′ north, and longitude 1° 5′ west) is considered the strongest fortress on the coast. It is built close to the shore, the town surrounding it in a crescent form, and extending to the sea on both sides. The population numbers about 6,000. Annamaboo is the entrepôt of commerce for Ashantee and the interior.

29. Dixcove (latitude 4° 48′ north, and longitude 1° 57′ west) has a native population of some 1,300. The bay on which the town stands affords accommodation for vessels of 100 tons to take in their cargoes.

30. The population of the whole dependency is estimated at 385,000 souls. The local authority is vested in a governor, under whom is a judicial assessor appointed by the Queen. No council, executive or legislative, exists on the Gold Coast; but the power to enact laws

resides in the governor and council of Sierra Leone. At Annamaboo, Accra, and Dixcove there are resident magistrates, by whom the local affairs are administered. The revenue of the Colony is derived from an annual government grant of £4,000, a duty of half of one per cent., *ad valorem*, on all imports, and certain small fees. In 1854 the income amounted to £10,211, and in the same year the expenditures amounted to £9,376.

31. The Wesleyan Methodists have missions in this country, and their chapels are said to be attended by about 6,000 native converts, and in 1852 about 1,200 were in attendance at the mission schools. They have also churches and schools in the interior, and are exercising throughout the Colony an excellent influence.

32. The products useful to commerce are few, but comprise several of the most valuable staples, as palm-oil, gold-dust, ivory, and grain. The imports include British manufactured goods of a useful description, besides arms, gunpowder, spirits, and wines. This commerce is chiefly with England, and is becoming important. In 1851 the exports were valued at £159,250—in 1854 at £200,002, and the imports, which in 1851 amounted only to £71,635, had increased to £107,200 in 1854. The chief export is palm-oil, the British demand for which is so rapidly increasing as to give an immense impulse to its manufacture.

33. Cape Coast Castle was first settled by the Portuguese in 1610. They were dispossessed by the Dutch, and the settlement was confirmed in the possession of England by the treaty of Breda in 1672. When the African Company, under whose control these settlements remained for a long period, was abolished in 1821, several of the forts were abandoned, and the remainder surrendered to the crown and subjected to the authority of the governor of Sierra Leone. In 1827 the retained forts were placed under the management of a central committee of London merchants, to whom the disbursement of an annual government grant was confided. Accra, with forts Christianborg and Fredensborg and other now deserted forts, were purchased by the British government from Denmark for £10,000 in 1850. British influence is also now paramount at Lagos and Abbeokouta, the latter a town about 50 miles inland, which was lately colonized by about 3,000 liberated Africans from Sierra Leone. In 1852 the British governor of the Gold Coast Colony assembled the native kings and chiefs, who inaugurated a legislative assembly for the regulation of the domestic affairs of the whole district.

[*Weights, Measures, and Moneys.*—In the colonies the standards of the colonizing nations. In Liberia the standards of the United States. Several native denominations are mentioned in the Cambists.]

SOUTHERN AFRICA.

1. Southern Africa, in the abstract sense of the term, is confined to the continent south of the equator; but for convenience the limits of the division may be extended somewhat farther north, so as to include those parts of the same geographical region which lie north and up to the not yet defined southern limits of Soudan. An irregular line drawn across the continent from the Cameroons on the Bight of Biafra to the Gulf of Aden would define the approximate northern confines of this region. The whole may be divided into four portions —1st, the Maritime Region on the west;—2d, the Maritime Region on the east;—3d, the Interior, as yet almost an unknown region; and—4th, South Africa, or the countries composing and adjacent to Cape Colony, all of which are more or less under British influence.

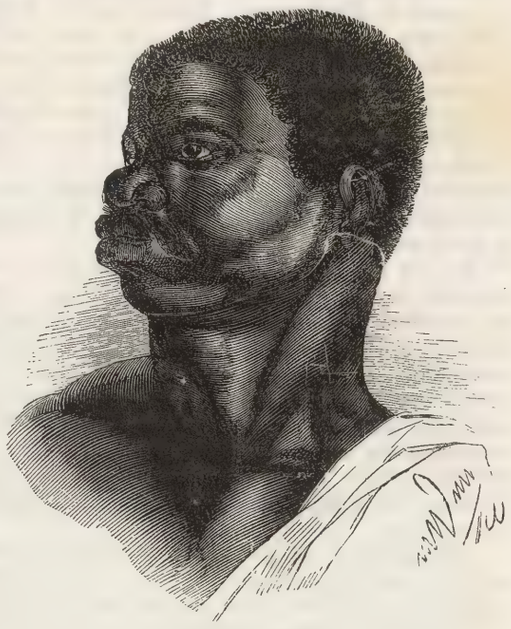
1. THE MARITIME REGION ON THE WEST.

2. This region in former times was usually, and by some geographers is still, denominated Lower Guinea. Its coast extends from the Cameroons to the Orange River, and its eastern boundary is demarked by the dividing line between the rivers falling into the Atlantic and those which fall into the Indian Ocean. This line is very irregular—in some places approaching nearer and at others being more distant from the western coast; and the slope from the central table-land is more or less abrupt in its several parts. The topography of this region is little known; but away from the coast the surface is mountainous—the mountains mainly running north and south, but in several instances east and west, and in various directions, giving rise to many lesser and a few large streams, of which latter the Congo or Zaire is the longest and most voluminous, and reaches at least one third the distance across the continent. It is, however, of the coast alone that anything certain has been learned. This is divided by geographers into several regions, viz., Gaboon, Loango, Congo, Angola, Benguela, etc.

3. The coast of Gaboon is that section of the country extending from the Cameroons to Cape Lopez. The Cameroon Mountains are a range between the Rio del Rey and Cameroons River, and though occupying a comparatively small space attain a considerable elevation, culminating 13,760 feet above the sea. The island of Fernando Po, which is divided from this coast by a narrow channel, would appear to be a section detached from this mountain by some convulsion of nature. A lower range, and, perhaps, a continuation of the Cameroons, follows the coast half way to the equator. Through this range the Quaqua has broken a passage. Otherwise than these, the maps of the country exhibit a large space of low and level lands, drained by the Gaboon and Moondah rivers. Of the interior, to the dividing ridge, little is known; but it would appear that the country is inhabited by a large number of tribes, living in villages, and all speaking different languages, some of which have been reduced to writing by the missionaries. They are governed by absolute sovereigns, and are almost constantly at war with each other. War prisoners are chiefly sold at Cape Lopez, but there is also some trade carried on in ivory, gums, wax, and mats. The people near Cape Lopez are wholly under the influence of the Portuguese and Spaniards. There are, nevertheless, several stations both on the Cameroons and Gaboon rivers, and the missions are said to be generally prosperous. The only town of importance on the coast is Naango or Georgetown, formerly, and probably now, the principal slave-market on the Gaboon.

4. Loango extends from Cape Lopez to the Congo or Zaire River, and also includes a number of petty kingdoms. The coast is high and abrupt, and the maritime region backed by a mountain range, on the slope of which several small rivers rise, and after a short course fall into the Atlantic. The Congo on the south border is the only river which comes from the interior table-lands and breaks through this range. At its mouth it is 10 miles wide. The soil of Loango, from the luxuriant vegetation covering both the hills and lowlands, would appear to be fertile, but much of its productiveness must be attributed to the climate. The people reside in villages or clusters of straw huts in the midst of palm groves, but are in the lowest stage of civilization. The principal town, and from which the country derives its name, is Loango or Banza-Loango, situated on a plain about two miles from the bay of the same name, in latitude 4° 35′ south. It is said to contain 15,000 inhabitants. The other principal towns are Mayumba, 90 miles north; Kabenda, about 80 miles south, and Embomma, on the north bank of Congo River, 60 miles from its mouth. All these, and also Malembu, are noted as slave-markets.

5. Congo is a comparatively small territory south of the Congo River, and extending to the Ambriz River. Near the sea the country is low and flat, traversed by numerous streams, and abounding in sandy wastes, but in general fertile. The climate is hot, moist, and pestilential. The interior consists of a succession of terraces, forming a fine, rich, and populous country. The banks of the Congo are clothed with the most luxuriant vegetation. The inhabitants are negroes, the least favored of the race, and are low in the scale of civilization. The petty chieftainships into which the territory is divided are subject to the supremacy of a king who resides at Banza-Congo or San Salvador. Ambriz is the principal coast town, and the most available of the slave-marts.



NEGRO OF CONGO.

6. Angola is a territory of larger dimensions than Congo, and extends south to the Rio Coanza. It is an extremely mountainous country, but with wide and fertile valleys, and near the coast is a small, low, and sandy region. The climate is here warm, but more moderate than farther north; and every species of intertropical vegetation is abundant. Gold and silver are found in the mountains, and iron and copper are plentiful; but lead, sulphur, and petroleum are the principal mineral productions of the country. The population is said to be dense. Loando or St. Paul is the principal town, and contains 8,000 to 10,000 inhabitants. The country is under Portuguese influence, having been occupied by that nation for upward of 300 years. The petty chiefs, however, are immediately subject to a general or sort of king called the Incua. The principal exports are ivory and slaves.

7. Benguela has a coast-line of 400 miles, extending from the Rio Coanza to Cape Frio. It appears to be mountainous and watered by a great number of streams, and the elevations which traverse it—the Sierra Fria—are so considerable as to occasion a great degree of cold. Dense forests of tropical trees, and higher up trees of temperate climates, clothe the sides of the mountains. Vegetation, indeed, is remarkably exuberant, and provides for the inhabitants ample subsistence. The mountains yield copper, sulphur, petroleum, and crystals. The inhabitants are constituted into numerous independent tribes, and are extremely barbarous, having no idea of art or industry. The Portuguese, who have for centuries had settlements both in the interior and on the coast, have little influence over the tribes except in the vicinity of their forts. Their principal settlement is San Felipe de Benguela, in latitude 12° 40′ south.

8. Southward of Benguela the country is a succession of deserts and fertile stretches, scantily peopled, or traversed by the Cimbebas and Damaras. The Damaras also occupy a large interior district. The extreme south to the Orange River is the country of the great Namaqua tribes, who are Hottentot negroes, and were formerly included in Cape Colony. Some Dutch are settled among them.

2. THE MARITIME REGION ON THE EAST.

9. The coast of this region, which stretches from the Strait of Bab-el-mandeb to the Mapoota, a river falling into Delagoa Bay, has a length of between 3,000 and 4,000 miles, about one sixth of which forms the south border of the Arabian Gulf, and the remainder faces on the Indian Ocean and Mozambique Channel. By geographers the countries of this coast region are divided into Somaulia, Zanguebar, and Mozambique.

10. Somaulia or the country of the Somauli occupies the northern portions of these terri-

tories. The Somauli are a people who live in numerous independent tribes. They are a mild race, of pastoral habits, and confined entirely to the coast (the whole of the interior being occupied by the savage Gallas), and appear to be the descendants of the aborigines of the country, who were early converted to Islamism by the Arabs, with whom they traded. The north coast, sometimes designated on maps as "Adel," has three towns, which are little visited by Europeans—Zeila, Tajurrah, and Berbera. These are situated on the coast of the Arabian Gulf, and have good harbors. Berbera is the seat of a great fair, and the inhabitants of all these towns barter goods brought from the interior with the Arabians. The exports consist chiefly of coffee, gum, myrrh, ostrich feathers, gold-dust, hides, skins, and slaves.

11. From Cape Guardafui the coast extends in a southwesterly direction, but with various windings, to Delagoa Bay, and receives from the interior several large rivers, as the Haines and Jubb, which rise in the Galla country bordering on Abyssinia; the Matoni or Lufiji, which reaches the sea through many mouths opposite the island Monfia; the Livuma, which debouches a little north of Cape Delgado; the Zambese, a large voluminous river from the central table-land, emptying through a broad delta into the Mozambique Channel, and numerous inferior streams along the coast, and several falling into Delagoa Bay. The greater part of this coast is a low region, but toward the interior the country rises and is backed by a long continuous chain of hills from 300 to 400 miles distant, and forming the outworks of the great interior plateau. The popular divisions of this country, which is essentially a single geographical region, are Ajan (Haziné, *Arab*, *i. e.*, rough ground), extending from Cape Guardafui to the Ras-ul-Khyle, and Magadoxa or Mukdeesha, extending thence to the river Jubb, both in the Somauli country; Melinda, Zanzibar, and Quiloa, all in the district called Zanguebar; and Mozambique, Quillimane, Sofala, Sabia, and Inhambane in the district of Mozambique. This long sweep of coast, of more than 3,000 miles, is chiefly occupied by negro tribes in a state of utter barbarism, though some of them are numerous and not altogether destitute of arts and industry. Arab colonies are also found at various places along the coast.

12. The sovereignty of the east coast as far as the river Mazimba, south of Cape Delgado, is claimed by the Imaum of Muskat, and the remainder as far as Delagoa Bay, by the Portuguese. The only territory, however, which the Portuguese actually possess throughout this claim is the captaincy of the "Rios de Senna," which contains about 3,000 square leagues. The town of Senna is situated on the Zambese River, in latitude 17° 30′ south. The other principal places in the Portuguese territory are Mozambique, Quillimane, Sofala, Inhambane, and Delagoa Bay. The Portuguese jurisdiction on the mainland does not extend ten miles inland, and the natives of the interior are quite independent. The islands of Pemba and Zanzibar, both belonging to the Imaum of Muskat, are very productive, and may be considered as the granaries of the Arabian settlements. Their foreign commerce is considerable. Quiloa is also governed by Muskatese officers.

13. The only other towns on the coast worthy of notice are—Magadoxa, which is an imposing place, the buildings large and of stone, and overtopped by four minarets, but these are inhabited only by the dead, the living population being resident in low-thatched huts; Baravah, within the territory of Magadoxa, also a port of consideration; and Melinda, once a flourishing city, but now totally destroyed by the savage Gallas. Mombas, (latitude 4° 4′ south), a town in possession of the Arabs, is only a mass of huts, hovels, and ruins. It is situated on a small island, in a bay or gulf which forms, perhaps, one of the most perfect harbors in the world. The island is surrounded by cliffs of madrepore, capable of being rendered, by very little labor, almost impregnable. None of the Portuguese ports, of which mention has already been made, are open to general commerce except the port of Mozambique.

14. The Bay of Delagoa is, without exception, the finest on this coast, being about 40 miles long and 26 miles broad. Numerous large and deep rivers debouch into it; and at the extreme end of the bay stands the town of Lorenzo Marques, a small Portuguese settlement. The three largest rivers which empty themselves into the bay are the Mapoota, English, and King George's. On English River there is an excellent harbor, formed by promontories stretching into the sea, and which would form an admirable site for a dock-yard. The British have acquired some rights on this bay, and as early as 1823 the people of Matemba and Mapoota were taken under British protection. It is now proposed to form here a penal settlement, and eventually colonize the country. Its proximity to Madagascar adds importance to the proposition.

3. THE INTERIOR TABLE-LAND.

15. The interior of Southern Africa is known simply from information derived from the natives. To travelers it is almost a *terra incognita*, and as yet only one, the famous Dr. Livingston, has been bold enough to cross it. This grand undertaking was completed in 1854–5; the Doctor having started from Loango and brought up at Tette, the farthest inland post of the Portuguese.

16. This interior table-land extends from the tropic of Capricorn to and beyond the equator, and embraces all of Southern Africa saving the coast region hitherto described. It is the most extensive upland plateau in the world, traversed by vast rivers and mountain chains; and presenting a succession of wastes, broad and green valleys, and bare and wooded hills. And in this region has been discovered an inland sea, extending in a northwest and southeast direction, or between the points—latitude 4° and longitude 26° and latitude 12° and longitude 35°, a length of nearly 700 miles with a breadth varying from 40 to 60 or 70 miles.

17. In this region dwell innumerable tribes of negroes, in communities and nations hitherto and as yet unknown to the world, producing and consuming, and more or less civilized. These, time and opportunity will introduce into the family of nations, and give to commerce a new world, whose raw productions are of the highest value, and whose wants will demand in return the various staples which the more civilized nations have converted to usefulness by their superior ingenuity and experience.

4. SOUTH AFRICA.

18. South Africa may be assumed to embrace all the lands south of the tropic, excepting, for convenience that portion usually considered as belonging to the Portuguese, extending south to the Mapoota River, and including Delagoa Bay. Within these limits are Cape Colony (elsewhere separately described), the Orange River Free State, the Trans-Waal Republic, and the country of the Kaffirs, in which last are included the British colonies of Kaffraria and Natal.



SOUTH AFRICAN HOTTENTOTS.

19. The Orange River Free State is bounded north by the Waal River, east by the Drakenberg range, and south and west by the Gariep or Orange River, which forms its limits toward Cape Colony, and receives the drainage of the whole territory. This is one of the states formed by the Dutch who separated from the British, and in 1854 was duly recognized by that nation as an independent state. The immigrant population numbers about 10,000, but there are also numerous native tribes throughout the country, and with these the Dutch have not scrupled to intermarry. For administrative purposes the country is divided into the districts of Waal River, Winberg, Bloemfontein, Caledon, and Albert. The government is a republic, the chief executive power being vested in an elected president, and the legislative functions in a volksraad or assembly consisting of 29 members chosen by the people. The capital is Bloemfontein, a town situated on the Modden River, near the center of the state. The Dutch have also several other towns, as Vreede, Dorf, Winberg, Aliwal, etc. The country is said to be prosperous and progressive, and may be considered as a bulwark to the British at the Cape.

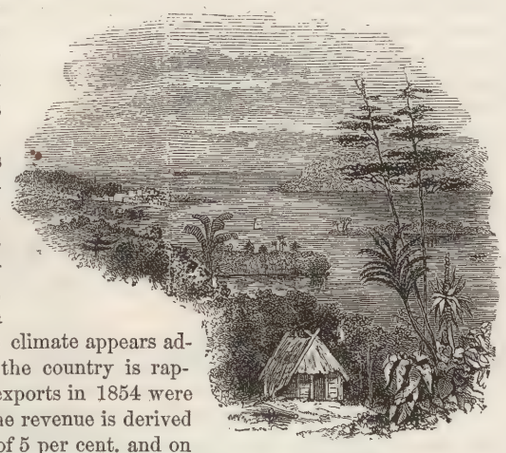
20. The Trans-Waal Republic, farther north, is about 600 miles long and about 200 miles broad, and, like the Orange River Free State, has lately sprung into existence from the same causes which led to the general defection of the Dutch boers or settlers to British rule. It is bounded south and east by the Waal River and the Drakenbergs: on the west and north its limits are not clearly defined. The white population is stated at 18,000 to 20,000, but besides these there are within or in close proximity to the borders various native tribes—Bechuanas, Griquas, etc.—numbering about 100,000. Lattakoo is the largest Bechuana town, having 10,000 or 12,000 inhabitants. The chief town of the Griquas is Klaarwater, at which there is a mission. The country is a table-land, and very hilly. It is well watered by the Kuruman River and other streams flowing to the Orange River. In the northeast the country is drained by the Notuani, Meriqua, Oori, etc., the union of which forms the Manice or King George River, which empties into Delagoa Bay. West of the present settlement is Great Namaqua Land and the Umak desert, both of which may in the future be absorbed by this young state, which of late has received considerable accessions from Europe, and it is also probable that the government will seek an outlet at Delagoa Bay, only two days' journey from the eastern frontier. Hitherto, however, all the supplies and most of the produce both of this state and that of the Orange River Sovereignty have passed through Natal.

21. Kaffraria, or the country of the Kaffirs, extends from the southeast frontier of Cape Colony to Delagoa Bay and Mapoota River, and from the Indian Ocean to the Drakenberg range, which separates it from the Dutch governments. Kaffir is a name given to the natives by the Mohammedan traders, and signifies "unbeliever." The country has a coast of about 600 miles in length. The interior is a land of rugged hills and deep valleys, and the slope much more abrupt than the western side of the mountains, which runs off toward the Atlantic in a kind of table-land. The country abounds in game, but there are few beasts of prey, although the lion and leopard are sometimes seen in the more secluded ravines. The hippopotamus is found in most of the rivers, and serpents and reptiles are common. Four nations, originally of one stock, are the chief occupants of the country—the Amakosa, the Amatimba, the Amaponda or Hambona, and the Vatvahs or Zulus. Of these tribes the last-named is the most conspicuous, and occupies a separate territory called—

22. The Country of the Zulus, which extends south from the Mapoota to the Tugala or Fisher's River. Their language is different from the more southern Kaffirs, and they have made a greater progress in civilization. They are a fine athletic race, and are industrious, well-behaved, and favorably disposed to trade with strangers. The country is represented as being very fine, rich in pasture, and abounding in cattle. Their government is a sort of clanship. The population of each tribe is divided into kraals or hamlets, each with a chief. Several of these constitute a district, over which is a higher chief. To a certain extent they also acknowledge the authority of the Umkumkani or great chief of the whole nation, who is supposed to be the original possessor of all the land and cattle within the territory. The Kaffirs, however, have no written laws, but certain long-established principles and usages are equally binding. In religion they are theists, and, though they have no idols, are superstitious, and their notions of a future life are vague and unsettled. Many of these characteristics apply to the other tribes. Next southward of the Zulus is that portion of the Kaffir country known as—

23. The Colony of Natal, which extends to the Umzimvubu or St. John River. Its area is stated to be 18,000 square miles, and it contains about 16,000 white and 120,000 Kaffir inhabitants. This Colony was originally settled by the Dutch East India Company, and at various times between 1823 and 1844 attempts at colonization were made by Boers from the Cape Colony and by various Englishmen. In May, 1844, it was annexed to the Cape government, but in April, 1845, it was made a separate colony, power being still intrusted to the

Cape authorities to make laws for the new province. In March, 1847, this power was revoked and vested in a lieutenant-governor and council; and in 1856 it was erected into a distinct and separate colony. A British commissioner manages the affairs of the aborigines, and is regarded as their protector and chief. British, American, and Norwegian missionary societies have stations in the Colony.



PORT NATAL.

24. The climate, on the whole, is pleasant and healthy, and the soil suitable for intertropical staples generally. Indigo, sugar, and coffee are cultivated. The cotton-plant also succeeds; and tobacco, maize, sweet potatoes, oranges, pine-apples, and pumpkins are raised in abundance. Cattle thrive well, but the climate appears adverse to wool-growing. In commerce the country is rapidly progressing, and the imports and exports in 1854 were respectively £124,722 and £43,599. The revenue is derived from a customs duty, on British goods of 5 per cent. and on foreign goods 12 per cent., the sale of lands, etc., and in 1854 amounted to £31,397. The expenditures were £32,495.

25. The Colony is divided into the districts of Pietermaritzburg, D'Urban, Umvoti, Impafane, Urturela, Ingal, Unbefane, Umzimculu, and Umzimvubu. The capital is Pietermaritzburg, a town near the middle of the Colony (latitude 29° 30′ south, and longitude 30° 2′ east), about 60 miles west-northwest from Port Natal. It was founded by the Boers in 1840, and now contains 3,000 inhabitants. D'Urban, the only port of the Colony, is situated on the east side of the inlet called Port Natal, which is a bay completely land-locked, and affording good anchorage. At this place all external commerce is carried on. Verulam, Windsor, and Western are the largest of the villages. The white population is composed chiefly of the original Dutch settlers and of British immigrants. The natives are scattered in kraals along the rivers and around the mission stations along the coast and western borders. Immediately adjoining this Colony, still farther south, is—

26. Kaffraria Proper, of which all that portion north of the Great Kei River is still independent. South of that river, and to the boundary of Cape Colony, is British Kaffraria. This territory was annexed to the Cape Colony in 1847, in consequence of the disturbances of the natives for the previous 20 years. In December, 1850, it was erected a separate government; and again in March, 1854, it was reannexed to the Cape, but under its own government and laws, the crown being represented by a lieutenant-governor. The precise character of the government, as now existing, has not been clearly defined, but it is thought to be a sort of protectorship or military occupancy, as British military posts are maintained over the whole country. That the ulterior design of the English is to colonize the district, is foreshadowed in the establishment of the town of London at the mouth of Buffalo River, which is considered the chief harbor.

[*Weights, Measures, and Moneys.*—Native unknown, and trade conducted by barter. In the possessions of Portugal the denominations of that nation are used. In the Dutch (Boer) colonies the old standards of Holland.]

CAPE OF GOOD HOPE—CAPE COLONY.

1. Cape Colony is situated between latitudes 28° 12′ and 34° 48′ south, and longitudes 16° 24′ and 28° 42′ east; and is bounded on the north by the Gariep or Orange River; on the northeast by the Nu-Gariep, the southern branch of the Gariep; on the east by the Welge Spruit River, the Wittebergen and Stormbergen mountains, the White and Black Kei rivers, the Klaas Smits River, the Chumie and the Keiskamma; and on the south and west by the Atlantic Ocean. The length of the territory thus bounded, east and west, is about 620 miles, and its greatest breadth, north and south, 435 miles. The area is estimated at 110,256 square miles.

2. The coast-line of the Colony has an extent of about 1,200 miles. The northwest portion, lying considerably out of the tract which is usually navigated, is imperfectly known, but is understood to consist of sandy plains, generally covered with shrubby plants. To the southwest and south it loses this character, and though seldom forming what may be called a bold and rocky coast, presents an almost uninterrupted series of headlands and indentations. The former occasionally stretch out into lofty promontories, the principal of which are the celebrated Cape of Good Hope, forming the extremity of the isolated mountain mass, of which Table Mount is the culminating point, and Cape Agulhas the most southern point of Africa. The latter are often scooped out into capacious bays, which have ample depth of water, but lying exposed in some direction or other, are very imperfect roadsteads. The chief of these bays are, on the west, St. Helena Bay, Saldanha Bay, and Table Bay; and on the south False Bay, with its important arm called Simon's Bay, St. Sebastian's Bay, Mossel Bay, the Camtoos, and Algoa Bay. Among these complete shelter is afforded only by Saldanha Bay, which possesses all the essentials of an excellent harbor; and Simon's Bay, which has been selected for the arsenal and chief naval station of the Colony.

3. The interior may be described as consisting generally of a succession of plateaux and mountain ranges, which rise above each other, and increase in elevation as they recede from the coast, each range forming the boundary of a lower and the abutment of the next higher plateau; and again lowering down considerably toward the Gariep or Orange River.

4. Beginning in the west, the first mountain range is the Bokkeveld, which lies about 40 miles inland, and stretches from north to south, in a direction nearly parallel with the west coast, till it reaches the neighborhood of the town of Worcester, latitude 33° 40′ south. Almost parallel to this range, but about 100 miles farther inland, is the Roggeveld. Between these ranges lies an extensive elevated plateau, which, according to its proximity to either range, takes the name of the Bokkeveld or of the Roggeveld Karroo.

5. In like manner several mountain ranges run parallel with the south coast. The first and lowest stretches from west to east, without interruption, for about 200 miles, leaving a belt along the coast which seldom exceeds 20 miles. This range of hills connects with the Bokkeveld, and properly forming one of its branches, takes, in the different localities through which it passes, the names of the Zwellendam, the Outeniqua, and the Zitzikamme mountains. Behind it, and at a distance varying from 15 to 30 miles, is a second range, connected likewise with the Bokkeveld, so as to form another of its branches, and known by the name of the Zwarte or Black Mountains. Between these two eastern ranges lie the plateaux of Kannaland and Long Kloof.

6. About 70 miles behind the Black Mountains is the last great eastern range, which links with the Roggeveld, near latitude 32° 10′ south, and takes in succession the names of the Klein Roggeveld, the Nieuwveld, and the Sneeuw or Snowy Mountains, the last forming the highest mountain chain in South Africa, and attaining a height which has been variously estimated, but probably is not less than 10,500 feet. The large space between this range and the Black Mountains is occupied by a plateau called the Great Karroo. On the west it connects with the Bokkeveld and the Roggeveld Karroos, and on the east with a similar tract called Candeboo, and thus the whole of these united Karroos may be regarded as one immense plateau, raised, on an average, 3,000 feet above the level of the sea, surrounded on all sides by mountain ranges, and stretching continuously, though with varying width, for 500 miles.

7. The geological structure of the mountains appears to be very uniform. They have a nucleus of granite, which sometimes comes to the surface, and forms the predominating rock, but much more frequently the granite is overlain by enormous masses of sandstone, easily distinguished by the numerous pebbles of quartz which are imbedded in it. The mountain summit, when composed of granite, is usually round and smooth, but when composed of the quartzose sandstone is often perfectly flat, and assumes the form of which Table Mount is a well-known specimen. The thickness of this stratum in some localities is not less than 2,000 feet, and may then be seen forming steep mural faces resembling masonry, or exhibiting a series of salient angles and indentations as sharp, regular, and well defined as if they had been chiseled. With the granite are often associated primitive schists, the decomposition of which seems to have furnished the chief ingredients of the thin barren clay which forms the characteristic covering of the Karroos. In some places, particularly toward the south coast, more recent formations appear, and limestone is frequently seen piercing the surface.



CAPE TOWN AND TABLE MOUNT.

8. Notwithstanding its lofty mountain ranges and elevated plateaux, Cape Colony has scarcely any navigable rivers. Elephant or Olifant's River, which falls into the Atlantic in the west of Clanwilliam division, is affected by the tide, and is navigable for boats for 30 miles, but, like almost all the other rivers of the Colony, is encumbered at its mouth by a bar, over which no ordinary sailing vessel can float. On the south coast the Breede, which empties itself into St. Sebastian's Bay, in Zwellendam division, admits vessels of 200 tons into the port of Beaufort, which stands at its mouth, but immediately thereafter becomes navigable only by small craft. To judge by the map, one might be apt to suppose that the Colony was remarkably well supplied with water. Streams are there seen traversing it in all directions, some of them apparently receiving numerous tributaries, and running a course of several hundred miles; and the fact is, that at the season when rain prevails, many of them are swollen into rivers of great width, and of a depth which would float the largest vessel in safety. But the fall of these rivers is as rapid as their rise had been, and the rains have no sooner ceased than they either disappear altogether or sink down into deep chasms, and occupy a shallow rocky bed, overhung on both sides by lofty precipices of the prevailing sandstone. They thus not only become useless as a means of internal traffic, but can not even be made available for purposes of irrigation.

9. The temperature of the Colony varies much in different localities, but its general average may be stated at 67½° at Cape Town, that of the coldest month being 57° and that of the hottest 79° Fahr. The extremes, however, have a much wider range. In the mountainous districts snow covers the highest summits during half the year, and the temperature, cooled down by the blasts which descend from them, often falls below freezing. The alternations of heat and cold are frequently great, as well as sudden. The southeast wind

sometimes blows with all the characteristics of a simoom. This wind, disagreeable though it be, is regarded as not prejudicial to health, and the statistics of the Colony certainly go to prove that there are few climates in which, under ordinary circumstances, human life is more likely to run its fullest course. Less rain falls in the interior, and on the west coast of Cape Colony, than in any other part of the world, excepting rainless districts.

10. The vegetation of the Cape is of a peculiar and distinctive character. To this, however, there are some curious exceptions in the case of particular plants, where a connection manifests itself between the botany of this part of the world and that of very remote countries. Yet nowhere else are genera and species confined within narrower limits than here, without any apparent cause for a dispersion so arbitrary. In many respects the vegetation in the eastern districts of the Colony differs widely from that on the west, although several plants are common to both. With the exception of the silver-tree or witteboom (*leucadendron argenteum*), none of the indigenous trees in the vicinity of Cape Town attain any considerable size.

11. But the characteristic vegetation of the Colony consists in its ericæ or heaths, stapeliæ or carrion flowers, and proteaceæ; of the first, there are about 400 species, and of the last 200, all exceedingly beautiful, but having a range so limited that none are to be seen north of the mountains which bound the Great Karroo, while by far the greatest number grow within 100 miles of Cape Town; the protea cynaroides, bearing a flower the size of a man's hat, is found on Table Mountain; as for the singular and fleshy stapelias, resembling a star-fish, about 100 species are mentioned, but they are almost entirely confined to the dry and sandy regions of the western coast, where they cover a tract of many degrees of latitude in extent.

12. A great portion of the eastern frontier of the Colony and the adjacent districts are covered with extensive thickets of a strong succulent and thorny vegetation, called by the natives the bush. The most common plants of the bush are aloes, of many species, all exceedingly fleshy, and some beautiful; the great red-flowering arborescent aloe, and some others, make a conspicuous, though by no means graceful, figure in the eastern part of the Colony, where they grow irregularly scattered over the parched and naked faces of the hills.

13. Other characteristic plants of the eastern districts are the spekboom (pork-tree—*portulacaria afra*), schotia speciosa, calitris or cedar, two or three species of podocarpus or yellow-wood, and the great succulent euphorbias, which grow into trees 40 feet high, branching like a candelabrum, entirely leafless, prickly, and with a very acrid juice; the euphorbia meloformis, three feet in diameter, lies on the ground, to which it is attached by slender fibrous roots, and is confined to the mountains of Graaf-Reynet, where also is found the extraordinary testudinaria or Hottentot's bread. The encephalartos, of which there are 15 species, all having the appearance of dwarf-palms, but without any similarity of structure, scarcely occur in the Cape Colony, properly so called, but extend over the mountains of Kaffraria, Tambooka, and Delagoa Bay, almost to the tropics. The brilliant strelitzias are almost peculiar to the districts of George and Zwellendam.

14. Throughout are found various species of acacia, many beautiful ones of oxalis, innumerable species of ixia, gladiolus, tritonia, watsonia, hesperanthera, and other handsome iridaceæ, known by the name of Cape bulbs; nor ought we to omit the endless varieties of pelargonium or Cape geranium, gnaphalium, xeranthemum, diosma, mesembryanthemum or fig-marigold, shrubby boraginaceæ, and curious, if not large or showy, blossomed orchidaceæ.

15. The animals indigenous to this Colony are almost endlessly varied, from the most unwieldy bulks to the most delicate and graceful forms. Among quadrupeds may be enumerated the giraffe, elephant, rhinoceros, the hippopotamus, now much less frequently seen than formerly; the lion, panther, hyena, jackal, wolf, wild boar, quagga, buffalo, antelope, oryx or gemsbok, monkey, porcupine, ant-eater, etc. Among birds are the ostrich,



ORYX OR GEMSBOK.

eagle, vulture, pelican, flamingo, crane, guinea-fowl, turtle-dove, and smaller species in great variety. The reptiles include among their number the largest and most venomous of their class, including the boa constrictor and the cobra da capello. In the surrounding seas and along the coasts whales and seals exist in such numbers as to make the capture of them an important occupation, while both there and in the rivers there is no deficiency of smaller fish.

16. The original inhabitants of the peninsula of Southern Africa consist of two distinct negro races—the Hottentot and the Kaffir, which are again subdivided into 10 or 12 different tribes. The Hottentots occupy the northern portion of the peninsula and the Kaffirs the northeastern. The first are a mild and timid people, with some talent but no energy. They make excellent shepherds and herdsmen, and are faithful and honest. When young they are clean limbed and well-proportioned, complexion a clear olive, cheek-bones high and prominent, teeth small and exquisitely enameled. The Kaffirs are a remarkably handsome race, tall, stout, beautifully formed, and graceful in their movements, cheerful and contented expression of countenance, complexion verging toward black. The offshoots of these two great families are the Korannas or Koras, the Bojesmans or Bushmen, Namaquas, Damaras, Griquas, Bechuanas, Mantatas, and Zoolahs.



BUSHMEN HOTTENTOTS.

17. For administrative purposes the Colony is divided into two provinces, and these are subdivided into districts, as follows:

Western Province.—Cape Stellenbosch, Zwellendam, Caledon, Worcester, Clanwilliam, Paarl, Malmesbury, George, Beaufort.

Eastern Province.—Uitenhage, Port Elizabeth, Graaf-Reynet, Cradock, Colesberg, Somerset, Albany, Fort Beaufort, Victoria and Albert.

The population of the Colony, according to the census of 1851, was 285,279, of which nearly one half belonged to the colored races and the remainder were Europeans or of European descent. In both cases the male greatly exceeds the female population.

18. The temperature is apparently such as ought to favor the growth of all the ordinary cereals; but even where the soil is well adapted for their growth, it often proves most unpropitious. Long-continued drouths destroy the corn in the blade, and mildew destroys it in the ear; and thus agriculture, formerly deemed paramount, has become only of secondary importance. Extensive tracts which never could have yielded a profitable return under the plow, were seen to be capable of supporting numerous flocks and herds, and the attention of the colonists was generally turned to pasture.

19. The native breed of cattle has been supplanted by better breeds, or improved by crosses with them, so that the cattle of Cape Colony would not suffer by a comparison with those of many of the better improved districts of Europe, while the Cape sheep, remarkable only for the ponderousness of their tails, have been very generally supplanted by finer European breeds, and more especially by merinoes. In 1852 there were in the Colony, 4,496,000 sheep, which in that year produced 7,773,505 pounds of wool, and the number of goats was 1,093,000.

20. Grain, particularly wheat, is still grown to a considerable extent in the lower districts, and in ordinary years crops both abundant and of good quality are obtained. In the same districts, and also in Cape division, considerable attention is paid to the culture of the vine, which grows freely, but in general is more remarkable for the quantity than for the quality of its produce. It is well known in commerce by the name of Cape wine, but is not in much repute. The only wine of the Colony which has obtained a high reputation is the luscious red wine, which grows in a very limited district south of Cape Town, and is called Constantia, after the celebrated vineyards near the town of that name, where alone it is produced.

21. Manufactures are limited to a few articles of primary necessity; and for supplies of manufactured articles generally the colonists depend on the mother country, whence they obtain goods of a better quality and at a cheaper rate than they could themselves hope to produce. The commerce of the Colony is rapidly increasing, and has already become very valuable. The principal exports are wool, wine, skins, hides, ivory, whale-oil, aloes, etc., and the whole in 1850 were valued at $2,628,689. In the same year the imports were valued at $3,981,043, consisting chiefly of British manufactures and colonial produce. The whale fishery, formerly pursued with some degree of activity, has now materially declined.

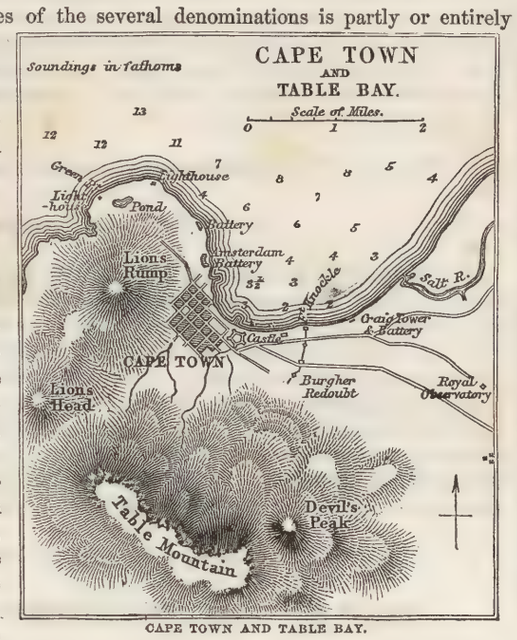
22. The governor is appointed by the crown. The parliament consists of a legislative council and a house of assembly—the former is made up of 15 members (one half elected every five years) and the chief judge of the Colony. The house of assembly consists of 46 members elected for five years. The electors are such male persons, not subject to legal incapacity, who have occupied for 12 months previous to the day of election premises or land of the annual value of £25, or been in receipt of salary not less than £50 per annum. Each district returns two members; Grahamstown two, and Cape Town (including the municipality of Green Point) returns four members. A property qualification is required for members of both houses of £2,000 in real estate or £4,000 in personal property, clear of all mortgages and debts. The colonial secretary, the treasurer, the attorney-general, and the auditor are empowered *ex-officio* to act and speak in both houses, but not to vote. A session must be held at least once a year. The governor has power to assent or dissent to bills passed, or to reserve them for the royal pleasure; but the sovereign in council may disallow of acts assented to by the governor. Each province

is administered by a lieutenant-governor, and each district by a civil commissioner, subordinate to whom are magistrates superintending tracts of country 15 to 20 miles in circuit. Justice is administered by a supreme court of judicature, presided over by a chief-justice and three puisne judges; a high sheriff and deputy sheriff for each district, a court of vice-admiralty, police and other courts.

23. The gross revenue of the Colony in 1850 amounted to $1,073,059, the cost of collection being $91,373. The principal sources were—customs $402,182, land revenue $69,600, land sales $41,697, transfer duties $97,857, auction duties $82,833, stamps and licenses $98,912, and postage $45,955. The total military expenditure was $759,365, and the number of men, including the artillery, was 4,790.

24. Public worship in the churches of the several denominations is partly or entirely supported by the government. The Established or English Church is presided over by the bishop of Cape Town, with a dean, four canons, and two archdeacons. The bishop of Cape Town is metropolitan, and has under him the bishop of Grahamstown and the bishop of Natal, and his diocese also includes the island of St. Helena. The public provision for education is made on a comprehensive and liberal scale; and in each district town there is a government free school, which is kept independent of sectarian influence. In Cape Town there is the South African College, and in the Cape district a diocesan collegiate school.

25. Cape Town, capital of the Colony, is a fortified town on the south coast, at the foot of Table Mountain, and on the southwest shore of Table Bay. It is regularly laid out in the Dutch style, with canals in the principal streets, and the sides of the main



CAPE TOWN AND TABLE BAY.

avenues are lined with oaks, poplars, and pines. The houses are flat-roofed and either painted or whitewashed, with terraces in front. The view of the town and its vicinity from the bay anchorage is very striking. Behind rise the perpendicular sides of Table Mountain, while on either hand are the barren crags of Lion's Head and Devil's Peak, the former usually capped with a cloud. Table Bay is capacious but is exposed to westerly winds, which from June to August produce heavy swells. To the port, at which is the custom-house, large vessels can not come; but the anchorage in the bay is usually safe, and great efforts are being made to improve it. In the vicinity are numerous villas, and the walks near the town are pretty and well kept. The climate is considered salubrious, and the place is much frequented by Indian residents on leave of absence. Cape Town was founded by the Dutch in 1650.

26. Grahamstown, the principal town of the eastern province, is situated near the sources of the Kowie River, on a plateau about 700 feet above the sea. Port Elizabeth, on the northwest corner of Algoa Bay, is a mean-looking but thriving town, and is the principal port of the eastern province. The anchorage of the bay, though open to the southeast winds, is not unsafe, but the landing is often impracticable, on account of the heavy surf. Graaf-Reynet, about 500 miles east of Cape Town and 142 miles northwest from Grahamstown, stands on the Sunday River, near the foot of the Great Sneeuw Berjen. It is a pretty-looking town, and inhabited almost exclusively by Dutch. Uitenhage stands on the Zwartkops River, in a fertile valley surrounded by wooded hills. It has been proposed to remove the seat of government to this town. Simon's Town, 24 miles from Cape Town, is a small place stretching along the shore of the bay, and backed by steep, barren, stony hills. Simon's Bay, the station for ships of war, is a cove on the southwest side of False Bay, and is a well-sheltered harbor.

27. The Cape of Good Hope was discovered in 1486 by Bartholomew Diaz. In 1620 two commanders of the English East India Company took possession of the country in the name of King James; but no settlement was then formed. In 1650 it was colonized by the Dutch government, and remained in their possession for 156 years. In 1795 it was taken possession of by a British armament, but restored to the Dutch in 1802. In 1806 it was again taken by the British, and confirmed to them at the general peace in 1814. Almost ever since this period a succession of hostilities has occurred between the colonists and the Kaffirs on the east and northeast frontiers of the Colony. An attempt was recently made by the British government to establish a penal settlement at the Cape, which was successfully resisted by the colonists.

Weights, Measures, and Moneys.—The British imperial system, and also many old Dutch denominations.]

ISLANDS OF AFRICA.

THE *principal islands on the east side of the continent are Madagascar; the Comoro Islands; the island of Bourbon or Re-Union; Mauritius or the Isle of France, with its dependencies —the Seychelles, Amirantes, etc.; and the island of Socotra.*

ISLAND OF MADAGASCAR.

1. MADAGASCAR is a large island off the southeast coast of Africa, from the mainland of which it is separated by the Mozambique Channel, in its narrowest part about 112 miles. Between Cape Amber (latitude 11° 57′) and Cape St. Mary (latitude 25° 42′) its length is nearly 1,000 miles, its longest axis being inclined to the meridian about 18° east of north. Cape East (50° 25′) and Cape St. Vincent (43° 10′) exhibit its extremes of longitude, but the greatest breadth of the island, measured at right angles to its axis, hardly exceeds 350 miles, and its average breadth is scarcely 240 miles. The superficial area of Madagascar may be estimated at 240,000 square miles.

2. The statement that a chain of high mountains runs through the whole length of Madagascar appears to want corroboration. It appears certain, however, that a tract of elevated land, rising in successive terraces divided by chains of hills, extends north and south, and that the north half, at least, assumes a mountainous character. It is only at the southeast extremity, near Fort Dauphin, that the highland reaches the sea; everywhere else the coast is bordered by a broad seam of low and level land, sometimes below the level of the sea, from which it is protected by a beach thrown up by the surf. Within these marshy flats rises a chain of hills, which is indeed but an external declivity of the elevated country, and within this, again, another similar range indicates the ascent to a still higher part. The most elevated land is nearly in the middle of the island, and supposed to be from 4,000 to 5,000 feet above sea-level, with mountains rising to perhaps 9,000 to 10,000 feet. On all sides this central plateau is surrounded by a belt of thick forest, which reaches down to the maritime plains, and at some points extends even to the sea-shore.

3. The rivers of Madagascar are exceedingly numerous, yet few of them offer even to a moderate extent the advantages of internal navigation. They fall rapidly from the highlands, and then spread into lakes on the coast region, so that they reach the sea with slow and feeble streams, and hence their mouths, especially on the west coast, are all barred. On the northwest, however, the elevated coast is broken into inlets and deep bays, and the rivers which fall into these are often accessible. The largest of these rivers is the Betsibooka, which falls into the bay of Bombeloka, nearly in latitude 16° south. Boats can ascend this river 160 miles. Of the Sambaho, south of Cape St. Andrew, and said to be a great river, we know but little; the Mansiatra, falling into the bay of the same name (latitude 20° 30′), is likewise noted for its apparent magnitude, and the Yonghe-lahé, flowing into St. Augustine's Bay (latitude 23° 40′), is reported to be as large as the Loire. On the west the chief rivers are the Mananghare (latitude 23°), the seven mouths of which are all inaccessible, and the Manguru (latitude 20° 8′), which is also completely barred. In the vicinity of the French forts and factories there are other rivers known to foreigners, but these derive their sole importance from the fact of their positions. On Matatana River (latitude 22° south) is an Arab settlement of ancient date.

4. The low coasts, as before intimated, exhibit not unfrequently chains of lakes running parallel and close to the sea-shore, formed, in some instances, by the overflowing of the barred rivers, and in others by the sea, and are salt or fresh, according to circumstances. At Ivondru, near Tamatave, on the east coast, the chain of lakes, beginning with that of Nossi-vé (many islands), extends about 150 miles along the coast, and the portages between the lakes rarely exceeding half a mile, it affords a ready means of communication. In the interior of the island, lakes are also numerous; that of Imania is said to be 100 miles long, and only a mile wide. The others most important are Saririaka (image of the ocean), and Itasy, famous for its fish, in the central elevated district.

5. The prevailing rocks in the high country are granite, syenite, and quartz; the subordinate ridges, or nearly all beyond the central heights, are composed chiefly of stratified rocks. Among the latter are clay-slate, graywacke, sandstone, limestone (some fossiliferous). In the mountain districts volcanic rocks occupy an extensive area, but the existence of any active volcanoes on the island is at least disputed. The sandstones which overlie the clay-slate contain iron, but the chief deposits of this metal lie in the central volcanic region. The gold and silver mines, so much extolled by the early advocates of colonization, are now no longer heard of; but the island abounds in copper, manganese, plumbago, rock-salt, niter, sulphur from pyrites, etc.; and it is said that excellent coal has been found near the sources of a river falling into the Betsibooka, and now used by the natives for their furnaces.

6. Though extending through 11° of latitude, the climate, on account of the mountainous character of the northern parts, is somewhat equalized, and does not present the extremes that might be expected in its several zones. The heat of the coasts, however, is everywhere intense, but in the highlands the winter temperature sinks to 50°, or even 40°, and hail and sleet are frequent, while ice forms in the more elevated regions. On the coast the rains are almost constant after sundown. In the mountains the winters are dry and agreeable. Few spots are free from fever, and cutaneous maladies are of an aggravated character; yet for all this, examples of longevity are not unfrequent.

7. The vegetation of the island is rich and various; of 400 plants collected there, 100 are altogether new, and 200 more from new species. The most important trees are the baobab (*adansonia*); the ravinala (*urania speciosa*); filao (*casuarina equisetifolia*); the rafia (a *sagus*), from the filamentous leaves of which is made a kind of cloth, while the stem furnishes a drink like spruce-beer. The avoha (*dais madag.*), which furnishes a coarse paper material; the ambaravatsi (*tapia edulis*), feeding the native silk-worm; the areca; three species of pandanus (bamboo); the azaina, yielding a gum valued as a cement; copal and other gum trees; ebony, etc.; and numerous dyeing woods; varieties of Indian fig; tamarind; trees and shrubs yielding

gum-elastic, and the zozoro or papyrus peculiar to the island. Ginger, pepper, and indigo grow wild in the woods; and cotton, sugar-cane, tobacco, and hemp are cultivated. Except in the northwest, where arrow-root is the chief food, rice, of which eleven species are cultivated, is the staple esculent; and the plantain, banana, yam, manioc, maize, millet, beans, etc., add to the general abundance. Besides the native fruits, the orange, peach, citron, mulberry, and grape are now widely diffused, and coffee appears also to find here a genial climate and soil.

8. Madagascar has few formidable animals, and the list of its beasts of prey embraces only the ounce, wild dog, and cat, and bushy-tailed fox. Crocodiles are numerous in the rivers, and snakes of great size are often met with; but the first are not considered dangerous, nor the latter venomous. Scorpions and centipedes are common, and there is a species of spider, the bite of which is usually fatal. Little is known of the animals of the interior, but native reports indicate the existence of the unicorn, and a species of ostrich is said to inhabit the deserts. Apes and monkeys abound, and birds and insects are in vast variety and numbers. Locusts appear in countless multitudes, and in the season afford an approved dish. The horned cattle, the chief wealth of the inhabitants, are of the hump-back kind, and the sheep resemble those of Cape Colony, being long-legged and fat-tailed, clothed with hair instead of wool. Horses, recently introduced, have multiplied rapidly.

9. The population of Madagascar affords, in variety of feature and complexion, proofs of its having sprung from different races; while on the other hand there is a perfect unity of language, resulting from assimilating influences during many ages. The ruling race is also the fairest. The Hovas, who have established their sway over nearly the whole island, are distinguished from the other natives by their light olive complexion, the absence of thick lips, and by their active figures. They are well made, and of middle size. The Sakalavas, who possess the west coast, are quite black, with thick lips, crisped or woolly hair, but not depressed features. They are tall, strong, and vigorous, very frank and courageous, and though inferior to the Hovas in aptitude, appear superior to them in many noble qualities. These are the extremes of the fair and dark races. Some families lay claim to Arabian origin, and on the east coast may be found also many families of Indian and of French descent. The government seems to be a monarchical despotism, and hereditary. Public assemblies are called, however, and addressed by the sovereign, but not consulted; and a body of judges sits constantly in public to hear complaints and settle disputes, but they are not guided by any written code of laws. The whole population may be estimated at 4,700,000, or about 20 to the square mile of territory.

10. The manners and social customs of Madagascar do not differ essentially in its various parts, and only in degree. The Hovas may be taken as the primary type; they retain many indications of their Eastern origin, are sprightly, courteous, and flexible—have great fluency of speech, and the poetic faculty in a high degree, and are strongly attached to ancient usages. They have a strong disposition to divide into castes. The chief distinction of a great man is to have many wives, and position is determined by the number, but the sovereign alone can have twelve. The dwellings of the better classes are of wood, with verandas, and the roof, always immoderately high, is neatly covered with rushes. The dwellings of the poor are constructed of bamboo or rushes; and the villages are either built on almost inaccessible heights, or surrounded by deep ditches. The popular dress consists of the salaka or cloth round the loins, and the lamba or mantle, and many wear red sashes. In general, the people exhibit much aptitude for the manual arts; as silversmiths, gunsmiths, and carpenters they excel, and with looms of the rudest construction they make excellent and handsome cloths. The religious opinions of the nation are nowhere clearly set forth; they appear, however, to believe in a good and an evil principle; but their chief objects of worship are idols rendered formidable by the arts of their guardian priests, and any offense given to these is sure to incur an accusation of sorcery, a crime expiated by falling from the edge of a deep precipice. A fiftieth of the whole population is said to be cut off annually through the instrumentality of the priesthood.

11. Madagascar is divided into 22 provinces, each of which was formerly a separate state. The town of Tananarivo, near the center of the island, is the capital, and contains about 7,000 houses and 30,000 inhabitants. It covers an elevated and steep ridge about two miles long, and stands in latitude 18° 56′ south, and longitude 47° east. It is the center of industry and civilization, and the principal city of the Hova dynasty. Among the numerous ports on the coasts, the most frequented is Tamatave, on the east side of the island. Foule Point, a short distance to the northward, is also a seat of some trade. Farther in the same direction and on the same coast is the fine inlet of Antongil Bay, which is much resorted to by whale-ships. St. Augustine's Bay, in the southwest, is also a place of resort for foreign shipping. The French are the only Europeans who possess settlements in Madagascar. Fort Dauphin, on the southeast coast, the site of a former French settlement, has been abandoned; but the island of St. Mary (to the south) and Nos-Beh island, off the northwest coast, belong to that nation, and are the seat of some trade, though of inconsiderable amount. They have at the present time no settlement on the main island.

12. Madagascar was discovered in 1506 by the Portuguese, but it does not appear that they ever attempted its colonization. In 1644 the English established a factory at St. Augustine's, but the climate and hostility of the natives compelled them to abandon it two years later. The French East India Company had made settlements as early as 1642 in Antongil Bay, St. Mary's Island, and elsewhere, but were forced by the climate to confine themselves to the elevated district of Fort Dauphin, but even here they could not succeed. Their attempts to colonize the east coast were renewed in 1745, and again failed; and in 1773, Benyowsky, encouraged by the French court, conducted an expedition to Antongil Bay, but he too perished. The Mauritius having fallen into the hands of the English, and the French factories on this coast having been always considered as depending on that colony, the governor claimed by proclamation in 1806 the sovereignty of Madagascar. This was an important epoch in the history of the island. Radama, born in 1792, had succeeded to the throne in 1808. At that time Europeans were so little known in the interior that the Hovas dreaded them as reputed cannibals. The government of Mauritius, however, labored successfully to inspire confidence, and Radama sent his brothers to that island to be educated. They returned to Tananarivo in 1817, accompanied by their tutor, Sergeant Hastie, a native of Cork. This man, originally a Quaker, acquired a paramount influence over the mind of the king; and his counsels, all of a humanizing kind, produced the happiest results. Radama, at his instigation, abolished infanticide, and discouraged, as much as possible, the belief in witchcraft and other superstitions, and formed a regular army, trained by General (originally Sergeant) Brady, a West Indian mulatto, and with this force, 20,000, including artillery, he subdued the whole island. He meditated opening roads and canals, and actually commenced cutting through the necks of land which separate the coast lakes; and finally he gave sanction and encouragement to the Protestant missionaries and schools. Radama, indeed, became one of the most remarkable civilizers the world has ever known. He died prematurely in 1828, leaving a son, then but a child, by a younger wife; but was succeeded on the throne by his chief wife and sister Ranavalona, who in a short time overthrew all the innovations of her predecessor, and in 1835 the missionaries left the island; the native Christians were subjected to persecution, and in 1850 many of them suffered martyrdom. Previous to the exit of the missionaries the French were expelled from their settlements, and in 1846 the united French and English forces were repulsed by the Hovas, in an attempt to humble them by the destruction of their coast fortifications.

COMORO ISLANDS.

13. The Comoro Islands lie midway between the north point of Madagascar and the east coast of Africa. They are four in number, and called, respectively, Comoro, Mohila, Mayotta, and Johanna. They are all very high, and may be seen at a distance of 50 or 60 miles. The inhabitants are Mohammedans of Arab origin, incorporated with Africans, and are generally a courteous and hospitable people. Comoro, the principal and most northern of the group, is about 36 miles long, and from 15 to 20 miles wide. It is composed of ranges of mountains, which near the center unite in one common summit from 6,000 to 8,000 feet high. The soil is volcanic, and abounds in cocoa-nut trees, which supply the popular beverage. The neighboring waters are very deep. Bullocks, sheep, goats, and tropical fruits are abundant, but no water can be procured. Area, 300 square miles. Population about 30,000.

ISLAND OF BOURBON OR RE-UNION.

14. Bourbon lies in the Indian Ocean, about 400 miles east of Madagascar, in latitude 21° 51′, and longitude 55° 29′. It is 45 miles long, and in extreme width 33 miles. Area, 1,015 square miles. The island is of oval form, composed of a mass of volcanic mountains and slopes down from its elevated center to the coasts, along which is a girdle of cultivated land from three to four miles wide. The culminating peaks are Piton des Neiges, 10,334 feet; Grand Bernard, 9,743 feet; and Amandef, 7,492 feet—all in the northwest; and Piton de la Fournaise, 7,217 feet; the last an active volcano. Streams are numerous, and form deep, rugged ravines, and in the rainy season their swollen waters descend with devastating force on the plains below. Earthquakes are rare. The climate is delightful and healthy, and in the hottest months, February and March, the temperature averages not more than 80° to 85° Fahr. The mountains are covered with forests, but no part of the interior is cultivated or inhabited. All cultivation is on the shore girdle, where the soil, generally speaking, is of the greatest fertility, and presents all varieties of levels, from the margin of the sea to 3,000 feet high.



15. The principal staples cultivated are sugar, coffee, cloves, pepper, tobacco, and potatoes. Wheat, maize, and rice are also raised; and also manioc, the esculent arum, legumes, etc. The fruits of Bourbon comprise pine-apples, bananas, bread-fruit, dates, figs, grapes, oranges, strawberries, raspberries, etc. Hogs are in great numbers, but the dryness of the pasture lands prevents the rearing of cattle sufficient for the wants of the population. A few wild goats are found in the woods. The coasts abound in fish, and the shores with beautiful shells; ambergris is also found. The island, however, has neither metals nor useful minerals, other than volcanic rocks and earths. There are no manufactures except that of bags for holding sugar, etc., and some lime-burning and tanning establishments. The principal exports are raw sugar, rum, coffee, cocoa, cloves, mace, etc., and the principal imports, rice, wheat, oil, wines, cattle, salt, porcelain, etc., with cotton and other manufactured goods. After France, Bourbon trades chiefly with India, Madagascar, and the Mauritius. The exports amount to about a million dollars annually. The island has no harbors, but several roadsteads, the best of which are those of St. Denis on the north, and St. Paul on the northwest side.

16. For administrative purposes, it is divided into two arrondissements, six cantons, and 13 communes; and has two principal towns—St. Denis, the capital, and St. Paul, with 11 other towns and villages, mostly built on the coast. The population of the island numbers 108,682 souls. Bourbon is presided over by a governor, assisted by a council of 30 members elected for five years. The governor resides at St. Denis, where the supreme courts are also held, and which is also the seat of the bishop. Besides a college in the capital, there are numerous schools on the island, 16 churches, two hospitals, etc. The several towns along

the coast are connected by a good road running entirely round the island, and there is also an inner circle of road near the base of the mountains.

17. Bourbon was discovered by the Portuguese navigator Mascarenhas in 1545, at which period it was not inhabited. In 1642 the French sent here some criminals from Madagascar, and, having formally taken possession of it, in 1649 named it Bourbon. In 1810 it was seized by the British, but restored in 1815. It is the sole possession of France between Africa and Asia.

ISLAND OF MAURITIUS.

18. Mauritius or the Isle of France lies about 90 miles east-northeast of Bourbon, in latitude 20° 18′, and longitude 57° 35′. It is of an oval form, about 40 miles long, and from 20 to 25 miles wide, with an area of 708 square miles. It is surrounded by coral reefs, and composed chiefly of rugged and irregular mountains rising usually into points or pinnacles of considerable height; the highest are the Brabant Mountain, 3,000 feet, and the singular isolated rock, Peter Botte, 2,600 feet. Between the mountains, however, and along the coast, there are several large and fertile plains and valleys, well watered by numerous streamlets, many of which become periodically dry, and have an exceedingly rich soil of black vegetable mold or stiff clay.

19. The climate is salubrious, but violent and destructive hurricanes are frequent, more especially in March or April. Originally the island was entirely covered with wood, and


MAURITIUS.
English Miles
Port Louis
St. Louis
Flacq
Mahebourg
Grand Port
Pt. aux Canonniers
Pt. aux Roches
Pt. aux Sables
Pt. aux Cannonniers
Pt. aux Caves
Pt. Moyen
Flacq en Flacq
Pt. de la Harmonie
Morne Brabant
Pt. aux Feuilles ou Brabant
Pt. aux Vacoas
Pt. des Lascars
Pt. des Pierres Noires
Pt. de Fayette
Pt. des Hollandais
Pt. de Barraque
Pt. aux Cerfs
Roches I.
Pt. du Diable
Pt. des Egrettes
Pt. des deux Cocos
Pt. Vaquois
Pt. Smitfleur
Pt. Chasseur
Pt. St. Amand
Pt. Dragon
Pt. des Anguilles
Pt. de la Barre du Ocorne
Pt. de la Butte aux Sables
Pt. de Mer de Mapou
Pt. de la Petite Rivière
Pt. de la Grande Rivière
Pt. de la Rivière Noire
Pt. de la Rivière Sèche
Pt. de la Rivière Verte
Pt. de la Rivière Rouge
Pt. de la Rivière Tamarin
Pt. de la Rivière Noire
Pt. de la Rivière Charles
Pt. de la Rivière Jacques
Pt. de la Rivière Jacques
Pt. de la Rivière Jacques

CAPE VERDE ISLANDS OR ILHAS VERDE.

29. Cape Verde Islands consist of a group about 300 miles west of Cape Verde, and between latitude 14° 17′ and 17° 19′ north, and longitude 22° 10′ and 25° 10′ west. The group consists of eight larger and several barren islands, the total area of which is 1,649 square miles, and the population in 1850 was 86,738. The principal islands and their respective areas are as follows: Santiago, 360; San Antonio, 240; Fogo, 144; Boavista, 140; San Nicolao, 115; San Vicente, 70; Maio, 50; and Brava, 36 square miles. Branca, Chaon, Carnera, and Ghudy are bare rocks, and Ilha do Sal has a sterile soil, but is important for the salt produced from the lagunes by solar evaporation.

30. The shores of these islands are commonly low or of moderate elevation. In the interior, however, the surface rises to a considerable height, and the volcanic summit of Fogo attains an elevation of 9,000 feet. The whole group is doubtless of volcanic origin. The soil is very dry, but by no means sterile; so uncertain, however, are the rains, which should come from July to November, that for three or four years together none have fallen. The consequences are material, and the population frequently suffers from scarcity of provisions. The inhabitants are chiefly negroes, a quiet and docile race, but extremely indolent. In some of the islands linens, pottery, soap, and leather are manufactured. Maize and rice are the principal objects of culture, but all intertropical roots and fruits are abundant, and coffee, sugar, cotton, indigo, and tobacco are produced in greater or less quantities. The wine made here is of inferior quality. Palm, tamarind, and adansonia are the principal trees. Among domestic animals, the most numerous are cattle, goats, asses, and fowls, and goatskins are a principal article of export. The most remarkable of the wild animals are monkeys, and bisam-cats. Turtles abound in the neighboring seas. Other staples are salt and orchilla. Amber is found on all the coasts.

31. The capital of the islands is Rebeira Grande, on Santiago. It is the see of a bishop, and residence of the governor, and contains 500 houses. Its harbor is small, and seldom visited. Porto Praya has a good harbor, and is visited by eastern-bound vessels for water and fresh provisions. Population 1,200. These islands were discovered by the Portuguese in 1449, and still belong to that nation.

FERNANDO PO, AND ADJACENT ISLANDS.

32. Fernando Po (Fernão do Pao) lies in the Gulf of Guinea, 20 miles from the African coast, in latitude 3° 28′, and longitude 8° 35′. Length 45, and breadth 10 to 20 miles—area



FERNANDO PO.

453 square miles. Its coasts are steep and rocky; its interior mountainous, rising in regular slope to two peaks, the highest of which, Clarence Peak, has an elevation of 10,630 feet. A great portion of the surface is covered with dense forests, and it abounds in monkeys, goats, and sheep. The climate is intensely hot, and in the rainy season extremely unhealthy. The population, chiefly negroes, are a mild and docile race, and numbered, in 1850, 12,753 souls. This island was taken possession of by Spain in 1778; abandoned in 1782; garrisoned by the English in 1827, abandoned in 1834, and in 1843 again occupied by the Spaniards, with a view to its colonization.

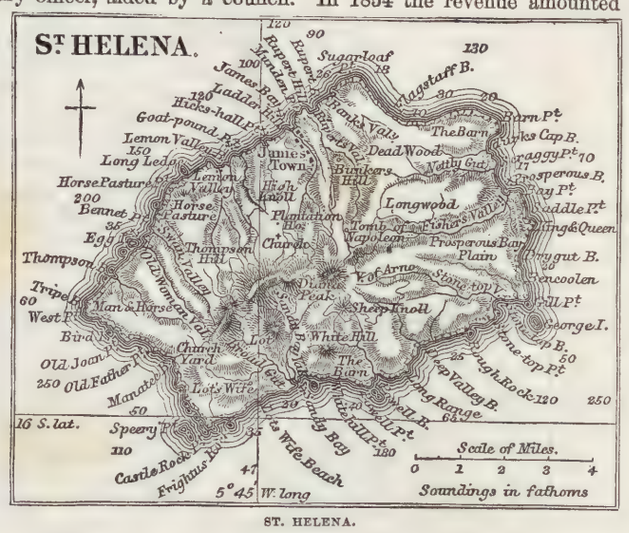
33. The other islands in the Gulf are Principe, San Tome, Annabon, etc. Principe is a high and wooded island, about ten miles long by six miles wide. San Tome is a larger and fertile island, but in the south mountainous and much broken. It lies immediately under the equator. Annabon rises to the height of 3,000 feet, and has a circuit of about eight miles. There are some commercial establishments here, and vessels obtain water and refreshments. The last three islands are nominally Portuguese possessions.

ISLAND OF ASCENSION.

34. Ascension is a solitary island in the Atlantic, in latitude 7° 56′, and longitude 14° 25′; area 36 square miles, and population 412. It is of volcanic origin, and generally mountainous, especially in the southeast, where one peak rises to the height of 2,870 feet. The climate is healthy, but so dry that until wells were sunk a few years ago, water was scarce. The surface is nearly destitute of verdure, and requires careful culture and irrigation to render it productive. The tomato, castor-oil plant, pepper, and cape gooseberry are indigenous, and all the common esculents and garden plants are raised in sufficient abundance for domestic consumption. Turtle and birds eggs' form at present its chief exports. On its northwest shore is an open roadstead, opposite Georgetown; a station consisting of a fort, military quarters, and a few detached residences. The island was discovered on Ascension Day in 1501. The English have held it since 1815.

ISLAND OF ST. HELENA.

35. St. Helena lies about 720 miles southeast of Ascension, and nearly 1,200 from the African coast. Latitude 15° 55′ south, and longitude 5° 44′ west. Area 44 square miles. The island is of volcanic origin, and consists of rugged mountains, interspersed with numerous ravines. In one of these, on its northwest shore, is Jamestown, the residence of the principal authorities. Its center is a table-land, with an elevation of 1,500 feet, and from this several mountains rise to a greater height, Diana's Peak being 2,700 feet. The climate is remarkably mild and equable. Water is abundant, and a large portion of the soil fertile, yielding readily both tropical and European products. In the uplands, goats are numerous, but supplies of provisions are mostly procured from abroad. In the year 1854 the imports were valued at £72,068, and the exports at £14,108. The population in 1851 was 5,490. Government is administered by a military officer, aided by a council. In 1854 the revenue amounted to £16,749, and the expenses to £19,830. St. Helena was discovered by the Portuguese in 1502, and was subsequently held by the Dutch, who abandoned it in 1651. From that time it was held by the British East India Company until 1833, when it was surrendered to the crown. This island, however, is chiefly noted as the place of exile of the ex-Emperor Napoleon Bonaparte, whose residence, Longwood, was on an elevated plateau of the interior. He lived there from 1816 to the period of his death, 5th May, 1821. The remains of this great man were exhumed and conveyed to Paris in 1840.



ST. HELENA.

ISLANDS OF TRISTAN D'ACUNHA.

36. Tristan d'Acunha is the largest of a group of islets in the South Atlantic in latitude 37°, and longitude 12°. The other islands of this group are named Nightingale and Inaccessible. The surface is generally mountainous, and one peak of the main island rises to 8,236 feet above sea-level. They were discovered in 1506 by the navigator whose name they bear, but remained uninhabited to the early part of the present century, when some British or American seamen squatted upon them and maintained themselves by cultivating the soil and furnishing supplies to the few ships that visited them. They are nominally claimed by Great Britain, and a British garrison was maintained upon them during the residence of Napoleon at St. Helena.

[*Weights, Measures, and Moneys.*—As most of these are colonized, it is presumable that the denominations of the colonizing nations, England and France, are in use for commercial purposes. Madagascar is the only island at all likely to have a native series.]

DESCRIPTIVE GEOGRAPHY OF OCEANICA.

Oceanica is a name not inaptly applied to all those islands in the Pacific Ocean which, either singly or in groups, extend from the shores of southeastern Asia to those of western America, and from about 30° north to 50° south latitude. It is generally considered by geographers as forming the fifth grand division of the world; and is divided into three distinct portions—Malaysia, Australasia, and Polynesia. The whole land surface is variously estimated at from four to five million square miles, and the population at from 24 to 30 million souls.

MALAYSIA OR THE MALAY ARCHIPELAGO.

1. Malaysia includes the numerous and large islands which lie between latitudes 22° north and 13° south, and longitudes 95° and 130° east. The group is called Malaysia from the fact that the Malay race are the most prominent of its inhabitants. The principal islands composing it are—Borneo, Sumatra and Java, Celebes, Mindanao, and Luzon. In this section of Oceanica are also sometimes included the peninsula of Malacca and the northwest portion of the island of Papua or New Guinea.

2. The arrangement of the several islands leaves a number of open spaces or seas, often difficult of access; but navigation is favored by constant winds and a general exception from tempests. These seas within the Archipelago are chiefly—the China Sea, between Borneo and the Malay peninsula; the Java Sea, between Java and Borneo; and the Sea of Celebes, between the island so-called, Borneo, Mindanao, and the Soo-loo Archipelago. Northwest of the last-named barrier between Borneo, the middle islands of the Philippine group, and Palawan, is the Soo-loo Sea; south of Celebes is the Sea of Floris, and farther east the Banda Sea, south of the Moluccas. The Strait of Macassar, between Borneo and Celebes, the Moluccas Passage, Pitt's Passage, and the Gillolo Passage may be added to the list of narrow seas. The last named, and Dampier's Strait, by the coast of New Guinea, are the principal entrances to the Archipelago from the east; while the straits of Malacca and Sunda give access from the west; and the straits of Lombok, Allas, Ombai, etc., from the south.

3. The divisions of the Archipelago, founded on natural characteristics, production, and population, are as follows:

The first division embraces the Malay peninsula, Sumatra, Java, Bali, Lombok, and about two thirds of the west part of Borneo to the 116th meridian. So far there is a general uniformity of animal and vegetable productions; the soil is extremely fertile, and rice, the principal product, is also the general food of the people, who have made considerable advances in the arts and habits of civilized life.

The second division, comprehending Celebes, Bootan, and east Borneo up to 3° north latitude, is in soil, food, and civilization inferior to the first. Rice is here no longer abundant, and sago often supplies its place.

The third division extends from longitude 124° to 130° east, and between latitudes 10° south and 2° north. Here the monsoons and seasons are altered, and nature takes a new aspect. The rich vegetation of the west islands is seen only on the sea-shore, and the hills are comparatively bare and arid. But this is the region in which alone the clove and nutmeg attain perfection. Yet the soil is not fertile; rice is scarce, and the staple food is sago. The people are much inferior to those farther west, and have never acquired the use of letters.

The fourth division is less distinctly marked out than the preceding. It lies between the parallels of 4° and 10° north, from longitude 116° to 128° east, including the north angle of Borneo, the Soo-loo Islands, and Mindanao. The inhabitants are superior to those of the third division; rice is their chief food, and sago is also much used. The clove and nutmeg are here indigenous, but of inferior quality to those grown in the more southerly portions of the Archipelago.

The fifth division is that of the Philippine Islands, from latitude 10° to 19° north. Here humid climate and volcanic soil reappear, and with them exuberant fertility. Rice again becomes abundant, and sugar and coffee are produced; but the peppers of the first division, the fine spices of the third, and some of the fruits of the islands near the equator are wanting.

4. The islands—Java, Sumbawa, Lombok, Floris, Timor, etc.—which in close array form the south line of the Archipelago, are all mountainous, and the chief summits are volcanic. Many of them, indeed, are still active volcanoes. It would appear, then, as if this very long and narrow ridge had been raised from the ocean by the agency of subterranean fires. The line of volcanic action may also be traced on the west side through Sumatra to Chittagong, on the Bay of Bengal. On the east side it reaches the meridian of 130° east, and then inclines to the northwest; and thence the volcanic line may be traced through the Philippines and Japan to Kamtchatka.

5. The whole Malay Archipelago lies within the tropics, and, indeed, for the most part on and near the equator; and the general equality of the climate throughout is attended with a certain uniformity of production and similarity of manners in the people. But close examination detects wide differences, and furnishes ample ground for distinguishing climatic groups. This whole oceanic and equatorial region is excepted from the general law of the trade-winds, which on the north and south sides of the line respectively blow constantly from the northeast and southeast. Within the Archipelago, however, and thence west to the coast of Africa, the monsoons, *i. e.*, season winds, prevail, blowing alternately from the southeast and northwest. But the monsoons, being an exception to the general law, vary much from place to place, though locally regular and constant; and east of Celebes, or of the 124th meridian, the seasons are reversed, or the rains fall during the dry seasons of the west islands, and far less copiously than in the latter. This circumstance, with the absence of the rich soil formed by the disintegration of the volcanic rocks, makes a broad distinction in respect of fertility between the east and west islands. The north Philippine Islands alone fall within the region of hurricane and boisterous winds. But the general law of smooth seas and constant breezes, which prevails farther south, is not strictly inviolable, and the Moluccas have on more than one occasion suffered from the ravages of high winds.

6. In the woods of the several larger islands most of the trees exceed 100 feet in height; but the density of the vegetation is still more astonishing than the vigor of individual plants. In the struggle for space and air the different kinds become piled one over the other—teak, mango, fig, musa, sandal, ebony, and other great trees are mingled with palms of endless variety and gigantic forms; while climbing plants, frequently canes, interweaved from tree to tree, bind the whole together and render the forest utterly impenetrable. This tendency to climb characterizes the vegetation of the Archipelago—stems a foot or more in diameter, and belonging to species which elsewhere grow without support, here twine themselves round the giants of the forest. Several of the climbing canes also take root, like the musa, as often as they touch the ground with their boughs. The rafflesia, the largest flower known, being nearly three feet in diameter, is a parasitic production peculiar to these rank forests. The inexhaustible supply of timber afforded by these woods is to the natives of far less importance than the cocoa-nut, the bamboo, and numerous slender palms which adorn the coasts.

7. The animal kingdom in these interesting regions varies exceedingly, according to locality. Mammalia are numerous in the west islands, but few are found in the east—the types in the former, such as the elephant in Sumatra, the tiger there and in Java, etc., being allied to those of the neighboring continent of Asia; and in the latter connected more with those of Australia, especially in the possession of marsupials. Birds of the most brilliant plumage are numerous everywhere—the swallow (*hirundo esculenta*) builds its edible nest in the caves and rocks along the coast of almost all the islands, and that remarkable gallinaceous fowl the megapodius, once thought peculiar to Australia, is found in the east part of the Archipelago. Serpents, dangerous from their strength and from their envenomed bite, as well as those that are harmless, abound in the jungle, and sea-serpents of many kinds swarm in the Soo-loo and other seas. The lac insect inhabits some of the islands; all of them swarm with stinging pests; and the white ant commits the most fearful ravages on buildings and furniture of every description. The gavial or gangetic crocodile finds a congenial home in the streams of Sumatra, Java, and the other larger islands; the duding (*halicòre duding*) or gregarious herbivorous cetacean frequents the shallows on the coasts; trepang (*holothurea*) is taken in large quantities among the coral reefs and islands, and fish and crustacea are innumerable in variety.

8. In the Archipelago there are two aboriginal and distinct races—a brown or fair complexioned of Malay extraction, and a black Papuan or negro race. The brown race are about four inches below the average European stature, but are robust and somewhat clumsy, particularly in the formation of the lower limbs. The face is square, with hollow cheeks and projecting jaws, mouth large, nose small, eyes small and black, and hair lank. Their complexion does not appear to be affected by climate or habits. The Battahs of Sumatra and the wretched Dyaks of Borneo, who are among the fairest, live under the equator; while the Javanese, the most civilized and most luxurious, are among the darkest. The Papuans or dark-colored

natives are dwarf negroes—they rarely attain the height of five feet, and have feeble frames; the skin is of a sooty-black, not polished like that of the vigorous African; the chin retreats so as to form no part of the face; the lips are very prominent, and the countenance generally wild and malign. These blacks once probably occupied the whole of the Archipelago; but the increase of the brown race has thinned their numbers in the west islands, where, however, they are still found in the mountains and fastnesses, and hunted by the others like wild beasts. They increase in numbers toward the east, and are the sole possessors of New Guinea. Wherever found they seem to be in the lowest stage of civilization.

9. An unusually large proportion of the whole population has maritime habits. Nor is this all—their chief towns are in many instances built over the water, the bamboo houses being constructed on stakes, and every house has its boat fastened to the door. In towns of this description, as Borneo, Banjarmassin, etc., the inhabitants may be said to live wholly on the water. It is not wonderful that such a people should have become skillful boat builders, and their práhus, often of 60 tons burden, are excellent specimens of naval architecture. Nowhere else in the world is the inconvenience so thoroughly felt of a numerous population of idle seamen, and hence the pirate is as common and natural a character in the Archipelago as the robber in the Syrian desert.

10. The only forms of government known to the brown or Malay population are an elective confederation, as in Celebes, and an unlimited despotism, as in Java. But the greater number of the islands are in possession of Europeans. With exception of the Philippines, which belong to Spain; of Penang, Singapore, and Labuan, and the rajahship of Sarawak, which belong to Great Britain; and the north and northwest portions of Borneo, the Soo-loo and some other islands under native potentates, the whole of this vast archipelago is either really or nominally under the sway of Holland, and known as the Dutch East Indies.

11. For the purpose of topographical description, the Malay Archipelago may be divided into six groups or islands, namely—1. Sumatra and the smaller adjacent islands; 2. Java and the long chain of islands extending east and west from the Strait of Sunda to New Guinea; 3. Borneo, with the Soo-loo Archipelago, etc.; 4. The Philippine Islands; 5. Celebes and the smaller neighboring islands; 6. The Moluccas, or, as they are sometimes styled, the Spice Islands, and the Banda Islands, the latter to the southeast of the Moluccas.

12. Sumatra, the most westerly of the Sunda Islands, and, next to Borneo, the largest of the Malayan group, lies immediately under the equator, between latitudes 5° 45′ north and 5° 55′ south, and between longitudes 90° 40′ and 106° 5′ east; and stretches northeast and southwest 1,050 miles, with a breadth varying from 60 to 240 miles. Its area is computed at 147,000 square miles.

13. A chain of mountains runs through the whole length of this island, keeping nearest the west coast, and forming in some places double and treble ranges, which vary in height from 3,000 to 5,000 feet, and in their highest culminations attain—in Dembo (3° 52′ S.) 10,440, in Loesa (3° 48′ N.) 11,150, and in Indrapura (1° 34′ S.) 12,140 feet. Between the ranges are elevated plains, where the air is cool, and which, being clear of wood, are the best inhabited parts of the island. These contain also many large and beautiful lakes. The low-land on the western coast is very narrow, scarcely anywhere exceeding 20 miles; but in the southern part of the east coast there are broad alluvial plains, intersected by large rivers. This diversified surface occasions considerable variety of climate, but the heat, even in the lowest of the coast lands, is more moderate than in other tropical regions.

14. The most important article of produce is rice; next to it is the cocoa-nut, which also serves as a general article of food, and there are also large plantations of betel, sago, and a great variety of palms. Pepper is a very important product, and is largely exported. Camphor, benzoin, cassia, and cotton are also produced, and hemp is extensively cultivated. No country is so distinguished for its fine fruits; and owing to the equable temperature an uninterrupted succession of shrubs and flowers, which diffuse a pleasant fragrance, is maintained throughout the year.

15. As a mineral country, Sumatra is one of the richest known. Gold in its pure metallic state is found in the mountains. There are no silver mines. The copper mines contain a very rich ore. In several parts of the island are extensive iron mines. Tin is also one of the principal products; and sulphur, yellow arsenic, and niter abound. There is also coal in various places. Mineral and hot springs are numerous in the higher parts of the island.

16. The inhabitants, about 5,000,000 in number, are distinguished as Sumatrans and Malays. The language of the latter is spoken everywhere along the coast. The natives are a mild and peaceable race, but have made little progress in industrial pursuits, and are without history or written laws. The chiefs are despotic. The Malays occupy chiefly the coasts, and are a far superior race. Islamism is the prevailing religion.

17. Sumatra is partly independent and partly under the dominion of the Dutch, who seem to be aiming at the possession of the whole island. They have already extended their conquests along the whole eastern coast to the neighborhood of Acheen. That territory, with the country of the Battahs and the possessions of the mountain tribes, are probably all that can now be considered independent. Acheen is a large city at the very northwest extremity of the island, about three miles from the sea, and is extensively engaged in commerce. To the south of Acheen extends the country of the Battahs, who form a sort of confederation; and farther south, along the east coast, are the kingdoms of Siak, Jambi, Palembang, and Lampong, all subject to the Dutch, whose dominion also extends along the greater part of the west coast, but nowhere are there any cities and towns of the least importance. The principal places on the west coast are at Natal, Pontchang or Tappanouli, Padang, Fort Marlborough, and Bencoolen. Menangeaboo, near the center of the island, formerly capital of an extensive empire, is still regarded by the Moslem inhabitants as one of the principal sanctuaries of Islam.

18. Along the coasts are several dependent islands: the principal on the west coast are—Engano, Mega, Pagai or Poggy, Beroo, Nias, Verkins, etc.; and on the east coast—Banka, Billiton, Sinkep, Lingen, Bintang, Rhio, Carimon, Panjore, Rantau, Bankalis, Roupat, and the Arroa Islands. Banka is a large but thinly populated island, containing rich mines of tin, and from this source a great portion of the tin of commerce is supplied to the markets. Rhio, on the island of the same name, is a free port, and from its advantageous situation as an entrepôt for the trade of Malaysia, may become the rival of Singapore.

19. To the north of Sumatra are the small islands of Way, Rondo, and others; and farther north the two large groups of the Nicobar and Andaman islands, which seem to form the connecting links between the mountains of Sumatra and the chain which terminates at Cape Negrais. The Nicobar Islands are twelve in number, and are hilly and well-wooded. The inhabitants are of the Malayan family. The Andamans consist principally of two long islands, and are inhabited by negroes, who exist in the lowest condition of savage life. To the east of Andaman is Barren Island, a noted volcano; and to the southwest of the most southern point of Sumatra are situate the Cocos or Keeling Islands, a low coral group of a circular form, surrounding a lagoon and protected by a reef.

20. Sumatra was first visited by the Portuguese in 1506; but it was not till 1600, when the Dutch established a factory at Pulo-Ching-ko, on the west coast, that Europeans obtained a firm footing on the island. In 1666 the Dutch Company took possession of Padang, and soon after enlarged its territories by treaty with the sultan of Acheen. Since that time they have gone on continually increasing and consolidating their dominion.

21. Java or Tana is separated from Sumatra by the Strait of Sunda, and extends east and west about 640 miles, with a breadth varying from 36 to 126 miles. It is situate between latitudes 5° 38′ and 8° 46′ south, and longitudes 105° 11′ and 114° 33′ east, and contains about 48,800 square miles.

22. The island is traversed throughout its whole length by two mountain chains, which in some places unite and again separate, forming ramifications sloping gently to the shore. Both chains are volcanic, and in their highest culminations attain from 10,000 to upward of 12,000 feet elevations. These mountains are intersected by large and beautiful valleys, watered by rivers and torrents, and covered for the most part with forests. Java is not rich in mines; it has, however, lignite, abundance of naphtha and asphalt, and numerous salt and saline waters. The volcanoes, when active, are remarkable for the quantity of sulphur they discharge.

23. The rivers of Java are generally rapid, shallow, and encumbered with sand-banks, but supply water to the innumerable artificial canals used for irrigation, and are also used for floating down timber from the mountains. The only navigable rivers are the Solo, Kediri, Tjimanock, and Tjitaroem. The south coast presents a continuous front of crags and rocks, forming the outer edge of the extreme mountain country. The north coast is flat and low, and in many parts covered with mangrove swamps. The principal harbors are those of Batavia and Soerabaya on the north, and that of Culi Pujang, formed by the small island of Kembangan, on the south.

24. The soil is of astonishing fertility. The coasts are fringed with palms, and thence inland to the foot of the mountains, the ground gradually rising, is one vast rice-field, watered artificially, and yielding two or three crops annually. Higher up commence the forests, which at successive elevations change in character, and finally vegetation assumes a boreal aspect. The most noted Javanese plant is the chettik or upas, the famed poison-tree, and Java is said to be the only island of the Archipelago of which the teak is a native. Neither the elephant nor the tapir are found in Java, but in the higher parts the royal tiger, panther, and tiger-cat are numerous.

25. The Javanese are among the most civilized people of the East. They are good tanners and adepts in metallurgy, in carpentry, and in cabinet-making. They weave and dye well, and make paper from the mulberry, and many are engaged in fishing. But the great masses of the population are devoted to agriculture. Beyond a few large towns, it is distributed over the island in villages, each governed by a native chief of its own election. Rice forms the staple food, and is raised in vast quantities. Coffee from the Mocha seed is extensively cultivated, and with sugar forms one of the staples of the island. Cotton is likewise largely produced; and the cultivation of indigo, nutmegs, cloves, cinnamon, cochineal, pepper, pimento, tobacco, tea, and cocoa-nuts is carried on with success. The foreign trade is chiefly carried on through the ports of Batavia, Samarang, and Soerabaya, and is mostly in the hands of the Dutch and Chinese.

26. In religion the Javanese are Mohammedan, a faith introduced in the fifteenth century by the Arabs, and which has since almost entirely displaced Brahminism and Buddhism, of both of which numerous imposing relics are to be met with in various parts of the island. The mass of the people take only one wife, but the people of wealth take advantage of the latitude allowed by the Koran and practice polygamy. In 1851 the population numbered 9,584,130 souls, of which 16,409 were Europeans and 147,168 Chinese, etc.

27. Batavia, the capital of Java, and of all the Dutch possessions in the East, is situated near the west end of the north coast. It is built on marshy ground at the mouth of the river Jakatra, and is defended by a citadel and several strong batteries. It is a large town of 120,000 inhabitants, of which 25,000 are Chinese, and less than 3,000 Europeans. In aspect it has a mixed Dutch and Asiatic appearance; the first being represented in its street canals, and the latter in its temples, mosques, etc. On the whole it is a poorly built place, and has few public edifices. The Jakatra is navigable for vessels of 40 tons two miles inland. The bay or harbor forms an open but small roadstead of great beauty, and may be entered by the largest vessels. Batavia, besides being the seat of the supreme government, is the great commercial emporium of the Malay Archipelago.

28. In the interior, 40 miles from Batavia, is Buitenzorg, a thriving and well-built town, and containing the summer residence of the governor-general. A navigable canal connects it with the harbor of Batavia. Bantam, 40 miles west of Batavia, was the first establishment founded by the Dutch in Java. It is now completely decayed, and its harbor choked up by coral reefs and islands of mud. Anger, still farther west, and on the Strait of Sunda, is a small place at which ships stop for provisions. Cheribon, 125 miles east of Batavia, has a considerable trade in coffee, indigo, teak, etc. Samarang, 85 miles farther east, is a fortified sea-port, and is the market for the immensely productive country surrounding it. The town is built like Batavia, in the Dutch style. Population 30,000. Soerabaya, on the strait which separates Java from Madura, possesses the only perfectly secure harbor on the north coast. It has ship-building docks, a naval arsenal, and a cannon foundery. Population 60,000.

29. Java was subject to Hindoo princes till 1478, when the island was conquered by Mohammedan Arabs. The Portuguese reached Java in 1511, and soon began to form small settlements. The Dutch established themselves at Bantam in 1595, and in 1602 the English erected

OCEANICA

SCALE OF STATUTE MILES.
(From the Equator and Central Meridian)
1200 Geographical or 1383.39 Statute Miles to one inch

AUSTRALIA AND NEW ZEALAND.

SCALE OF STATUTE MILES 69.16 to 1°
0 100 200 400 600
400 Geographical or 461.06 Statute Miles, to one inch.

PROFILE OF AUSTRALIA.

PROFILE OF NEW ZEALAND.

SANDWICH ISLANDS
SCALE OF STATUTE MILES.
0 50 100 200
200 Geograph.l or 230.53 Stat.e M. to 1 inch.
For relative size, compare with map U.S

PROFILE OF THE SANDWICH ISLANDS

For relative size, compare with Maps of North & South America

Entered according to Act of Congress, in the Year 1858 by A. H. Colton & Co. in the Clerks Office of the District Court of the United States, for the Southern District of New York.

a factory at the same place, which was the first possession of that nation in the East. But the English as well as the Portuguese were soon obliged to give way to the Dutch, who built the town of Batavia, and by degrees enlarged their dominions, so that at the present day they virtually possess the sovereignty of the whole island. When Holland was united with the French Empire, the British took possession of the island, but restored it to the Dutch after the fall of Bonaparte.

30. The island of Madura is separated from Java by a very narrow strait. It is 91 miles long and 31 miles in its widest part. The chief products are cotton, cocoa, and ornamental woods. The island is nominally subject to a sultan, who resides at Bankalan, near the west coast; the principal town, however, is Sumanap, on the east coast, and there is another town, Pamakasan, near the south coast. Bali, a somewhat smaller island, east of Java, is rugged and mountainous. Lombok, to the east of Bali, is of a compact form, about 53 by 45 miles, rugged and mountainous, but populous, fertile, and well cultivated. Sumbawa, east of Lombok, is 180 miles long and of very irregular width. Near the northeast end is the town of Bima, remarkable for its excellent harbor. Floris is 220 miles in length and about 50 miles wide. To the southwest of Floris is the large island of Sumba or Sandalwood, which abounds with buffaloes, horses, poultry, etc., and produces cotton and sandalwood. Timor is the third largest island of the chain, and is about 300 miles long by 50 or 60 wide. It is a beautiful island, of an irregular and picturesque surface, having limestone hills covered with trees and shrubs.

31. Borneo, excepting Australia, is the largest island of the globe. It lies between latitudes 4° 13′ south and 7° 5′ north, and between longitudes 108° 52′ and 119° 20′ east. Its greatest length is 800 miles, and its width from 100 to 600 miles. Area about 320,000 square miles.

32. Borneo forms the central mass of the Archipelago. From north to southwest it is washed by the Chinese Sea; on the south it faces the Sea of Java; on the east it is separated from Celebes by the Strait of Macassar, and northward for 250 miles its shores are washed by the Sea of Celebes. The coasts are beset by numerous reefs and islets, and farther off lie clusters of islands. These insular groups, usually considered as belonging to Borneo, are as yet hardly known in detail.

33. Though the mountains of Borneo are in some places visible from the sea, particularly off its north coasts, yet the general character of its shores is that of mangrove wastes or of interminable low plains, liable to inundation, and covered with dense forests. At the mouths of the larger rivers deltas of vast extent are formed, wherein there is hardly anything to be seen but the water and the impervious forest. In the center of the island a chain of mountains runs northeast and southwest, culminating in Kinibaloo (latitude 6° 8′ and longitude 116° 33′), 13,680 feet absolute height. From this central chain offsets ramify toward the east and west, and from these descend the innumerable streams intersecting the low maritime region. The Brunai is the largest river of the island; the other large rivers are the Rejang, the Sarebus, the Batang Loopar, the Sarawak, the Sambas, the Kapooas, etc. These are all rivers of commercial importance, and admit of being used for internal communication. But the greater number of the rivers of Borneo are blocked by bars at their mouth, and though navigable within, are quite inaccessible from without.



DYAK OF BORNEO.

34. Of the geology of Borneo little is actually known, but the existence of mineral wealth in its rocks and earths is sufficiently attested. Gold and diamonds are abundant. The largest diamond found on the island weighed 367 carats. Near Brunai, and also in Labuan, coal has been discovered under circumstances which indicate the existence of a large field of this valuable mineral. Borneo also yields iron, copper, tin, and antimony.

35. Countless forms of vegetation clothe this prolific island. The cocoa-nut, betel, sago, and gomati, the fiber of which serves to make cordage, are the palms most highly esteemed, and the leaves of other palms are used for roofing. A species of sugar-cane grows wild as well as a kind of nutmeg (flavorless), and a cinnamon which has a taste of cloves. The mountain sides are covered with forests, and still higher up the iron-wood tree attains colossal dimensions. In the district of Sarawak, and probably throughout the island, the gutta-percha tree is plentiful.

36. In the secure retreats of the forests lives the orang-outang, an animal peculiar to Borneo and Sumatra; and two other species of apes inhabit the skirts of the same woods near the banks of rivers and lakes. In the mountainous districts is found also the striped tiger; but the most singular animal in Borneo, after the orang-outang, is a whiskered carnivorous creature resembling at once the otter and the ornithorynchus, and which has received the scientific name of potomophibus barbatus. Borneo possesses also a peculiar species of hog (*sus barbatus*), distinguished by its enormous whiskers and hideous aspect. The banteng, a large and handsome buffalo, inhabits the mountains. Of deer, only three species exist. In the rivers are three species of crocodile, one of which resembles the gavial of the Ganges. Fish are extremely abundant along the shores; while in the Chinese Sea the reefs and islets are covered with oysters, and in the Strait of Macassar pearls and mother-of-pearl are ordinary productions.

37. The staples of Borneo which find their way into commerce are gold, platina, tin, antimony, copper, iron, and diamonds; and also edible birdsnests, the latter destined wholly for the Chinese market. Camphor, iron-wood, ebony, rattans, cassia, wax, sago, and rice are also largely produced; and among other products may be named maize, yams, batatas, betel, tobacco, cotton, sugar-cane, pepper, and other spices, etc.

38. The island is inhabited by four descriptions of people: the aboriginal inhabitants, the Malays, the Chinese, and the Bugis of Celebes. The first, called Dyaks, are the most numerous. They are allied to the Malays, and are divided into probably not fewer than a hundred tribes, speaking as many different languages. While some are mere naked hunters, the majority have fixed abodes, and have made some progress in the useful arts. They have no beasts of burden, but have domesticated the dog, hog, and fowl; and most of the tribes cultivate the lands. But there is a great diversity in the degree of civilization among them, and throughout the island many barbarous customs exist. The Dyak has but one wife, and with respect to religion there are neither temples nor priests. The total population of the island is about 2,000,000, viz., 400,000 Malays, 100,000 Bugis, and 140,000 Chinese—the remainder being indigenous tribes.

39. Borneo is divided into many separate states governed by native chiefs. One of the best known is Brunai or Borneo Proper, the sultan of which is now placed under the superintendence of the Englishman Brooke. The other principal states are Sambas, Pontianak, Simpang, Matan, Banjermassin, and Sarawak. The authority of the Dutch extends over a great portion of the island, which they divide politically into the residency of the west coast, of which Pontianak is capital, and the residency of the south and east coasts, of which Banjermassin is capital. The island of Labuan, on the northwest coast, 36 miles north of the town of Brunai, is now a British colony.

40. Borneo was first visited by Europeans in 1518 and in 1521. The first Dutchman that arrived at the island was Van Noort, in 1598; in 1609 the Dutch established a factory in Sambas, and the factors gradually raised themselves into sovereigns. In 1769 the English, having taken Manilla, obtained from the sultan of Soo-loo the cession of his claim to the north coasts of Borneo, and took possession of Balambangan, but in 1775 the settlement was abandoned. When Java was taken by the British in the late war, the Dutch power in Borneo fell to the ground, and the native chiefs, watched by a few British political agents, resumed the exercise of their original authority; but they now found themselves unable to cope with the Chinese Kong-sies, and were therefore well pleased at the return, in 1818, of their Dutch masters. But the most important event in the recent history of the island, and one likely to lead to the most beneficial results as regards civilization and commerce, is the enterprise of Sir James Brooke, who first visited the island in 1839, and has since been actively engaged in the suppression of piracy, the administration of justice, and the encouragement of industry.

41. The smaller islands geographically attached to Borneo are—on the west coast: the Natunas, Anambas, Tambelan, St. Esprit, St. Barbe, Daton, Caramata, Kumpal, etc.;—on the east coast: Laurot, Moress, Laut, Triangle Rocks, Little Paternosters, Donderkom, Bemige, Maratabou, etc.;—on the northeast coast: besides Labuan, before mentioned, Balambangan, Bangwy, Malawali, Cagayan-Sooloo, etc., and, extending between Borneo and Mindanao, the Soo-loo Islands.

42. The Soo-loo Archipelago comprises about 160 islands, of which about one half the number are inhabited. They are divided into three groups, named respectively after the three principal islands, Baseelan, in the northeast; Soo-loo, in the center; and Tawee-Tawee, in the southwest. Several of the islands abound in magnificent scenery, and are well-wooded and fertile. Among the valuable timber trees are teak and sandal; and among the fruits cocoa and areca nuts, bananas, mangoes, and oranges. Wild boars and deers are common, also oxen and swine, goats and poultry. A large number of the inhabitants are engaged in fishing. The islands afford a number of fine harbors. The whole of the Archipelago is under the sway of a despotic sultan, and the inhabitants, evidently of Malay origin, and numbering about 200,000, are represented as cruel and treacherous, and much devoted to piracy. Soo-loo or Soung, on the island of Soo-loo, is the principal town, and contains about 6,000 inhabitants. The sultan resides here. It has a good roadstead, with anchorage in 18 to 20 fathoms water, and is strongly defended by several forts. The trade of the town is considerable.

43. The Philippines, in the northern part of the Archipelago, are situated chiefly between latitudes 5° 32′ and 19° 38′ north, and longitudes 117° and 127° east, and are bounded north and east by the Pacific Ocean, west by the China Sea, and south by the seas of Soo-loo and Celebes. The group comprises at least 1,200 islands, great and small, the chief of which are Luzon, Mindanao, and Palawan, with Mindoro, Panay, Marindique, Negros, Zebu, Bohol, Leyte, Samar, Masbate, etc. The area of the whole is estimated at 120,000 square miles.

44. The shore lines and internal surface of the islands are extremely rugged and irregular. Their magnificent mountain ranges are clothed with a gigantic and ever-teeming vegetation, and between these lie extensive slopes and plains of the richest tropical fertility, watered by numerous lakes and streams. The group is within the range of the monsoons, and violent hurricanes are common. Earthquakes are also frequent. On the whole, however, the climate is healthy. Metalliferous mountains everywhere occur. Gold is found in the river sands, and iron, coal, copper, sulphur, etc., are abundant, and there are vast deposits of limestone.

45. The mountains are covered with gigantic timber. The cultivated plants are essentially tropical, and include coffee, cotton, sugar-cane, indigo, tobacco, spices, pepper, etc., with rice, maize, yams, and a variety of delicious fruits. Both the buffalo and the ox are found in a wild as well as a domesticated state. The former is employed in tillage and as a beast of burden. The Philippines produce small but spirited horses, deer, hogs, goats, and sheep; diminutive foxes and gazelles, monkeys, wild-cats, etc. The woods are full of game, and the jungles swarm with humming-birds, parrots, etc. On the shores are found sea-swallows, whose nests are so much prized by the Chinese for food. The lakes and rivers teem with crocodiles and fish; and fish, including crustacea, are found in great variety in the seas.

46. The native tribes of the Philippines are of diverse origin. Wild tribes, some of which are extremely ferocious, still haunt the mountains. The chief mountain tribes are the "Negritos" (diminutive negroes), who have given their name to the island of Negros, though not confined to it; and the Ætas or Itas, a dusky or copper-colored race. The great mass of the subjects of Spain, however, are divided into the Tagals, inhabiting Luzon, and the Bisayans, who inhabit the other islands. These speak respectively the Taga and Bisaya

tongues, each of which has a variety of dialects. The Tagals are more devoted to agriculture than the Bisayans, who, like the Malays, are attached to sea-life and fishing. The Chinese and the half-castes, Indo-European and Indo-Chinese, engross much of the business and wealth of the islands. The independent tribes are partly Mohammedan and partly heathen. The subjects of Spain are professedly Roman Catholic. The total population is estimated at 5,000,000, of which 1,000,000 belong to the Papuan race and independent tribes; 3,700,000 are Malay Indians; 55,000 half-castes and Chinese, and the remaining 245,000 European and native whites.

47. The manufactures of the Philippines are valuable. The textile productions range from the delicate pina muslin made from the pine-apple fiber, and sinamays, made from it mixed with the abaca filament, to coarse cottons, sackings, and the beautiful mats made of the abaca and gomute palm fibers. Hats and cordage are manufactured to a considerable extent; and, as a government monopoly, cigars, which employ many thousand persons at the royal factory at Manilla. Foreign art is successfully imitated by the natives in ship-building and coach-building, in the dressing and varnishing of leather, and in the manufacture of cordage.

48. An extensive trade is carried on, chiefly with China, England, the United States, British India, and Australia, in exporting sugar, tobacco, hemp, indigo, coffee, birdsnests, trepang, dye-woods, hides, gold dust, mother-of-pearl, etc., and in importing manufactured goods, marine stores, wines and liquors, porcelain, cutlery, etc. Manilla is the principal center of this trade.

49. The supreme civil and military government is in the hands of a governor-general, appointed by the Spanish crown. In discharge of his functions he is assisted by the ministry and juntas. An alcalde-mayor or corregidor is appointed directly by the crown for each of the provinces as administrative, judicial, and fiscal officer. Each pueblo is under a native "gobernadorcillo" or mayor, popularly elected. The public revenue is derived chiefly from duties on exports and imports, the tobacco monopoly, and a capitation tax. The land force amounts to about 7,000 men of all arms, of whom one tenth are Spaniards and the rest Malays. The marine force varies according to circumstances, but is always considerable.

50. Manilla, the capital, is situate at the south part of the island of Luzon, on the bay of the same name, and in latitude 14° 36′, and longitude 121°. It is one of the great emporiums of the East, and ranks as a trading mart with Calcutta and Batavia. It is a fine city, with numerous public buildings, churches, schools, etc. The aspect of the whole is at once Spanish and Oriental; and within the walls reside the heads of the state, church, and army. No foreigner is allowed to sleep within the city bounds. It is strongly fortified. Manilla was founded in 1571 by Legaspi. In 1645 it was destroyed by an earthquake. Since 1814 foreign merchants have been allowed to establish houses in the city. Population about 20,000, and including the suburbs about 140,000. Cavité, on the bay and about 10 miles southwest of Manilla, is a well-fortified sea-port of 6,000 inhabitants, and is the chief naval depôt of the Spanish in the East. It contains fine building-slips, an arsenal, large magazines, etc.; and its harbor serves for the port of Manilla during one half of the year. The principal towns on Mindanao are Magindanao, Zamboangan, Surigao, Tandag, and Katel, which are capitals of so many states or districts.

51. The Philippines were discovered by Magelhaens in 1520, and after repeated expeditions were finally annexed to the Spanish dominions. They were designed rather as a field of missionary than of commercial enterprise; and hence, from the first, the religious orders have had great influence in the establishment and institutions of the colony, and to them the land chiefly belongs. In 1762 Manilla was taken, and for a short time held, by the British fleet. These islands, since the loss of her continental American possessions, are of great importance to Spain, and their prosperity has been fostered with great assiduity and perseverance. Next to Cuba they are the most valued jewel in the Spanish crown.

52. Between the Philippines and the island of Formosa, in latitude 20° and longitude 122°, are situated the Bashee Islands, the most northerly group of Malaysia. This group consists of several small islands, ruled by independent chiefs, except the island Grafton, where the Spaniards have a small settlement, formed in 1783.

53. Celebes (Tana-Bugis or Tana-Mangkesser) lies between Borneo on the east and the Molucca Islands on the west, extending from latitude 1° 42′ north to 5° 52′ south, and from longitude 118° 45′ to 125° 17′ east. It is one of the largest islands of the Archipelago, and contains about 72,000 square miles. Properly speaking, the term Celebes applies to the east part only; the west part is known as Mangkesser or Macassar.

54. The island mainly consists of four large peninsulas, stretching to the east and south, and separated by three deep gulfs—Tomini, Tolo, and Boni. The absence of extensive deltas, and the intervention of broad grassy plains between the forests, distinguish Celebes from the other large islands. It abounds in the most picturesque and varied scenery, and the most beautiful and magnificent tropical vegetation.

55. Dense woods clothe the mountain sides, and among these are the oak, teak, cedar, the upas, and countless others useful or precious, as the clove and nutmeg and various palms. To these may also be added the pepper-vine, sandal-wood, and the sacred "waranguin," which latter sometimes presents in itself the appearance of a forest. The bamboo attains the height of 40 feet. Add to these the mango, the banana, the silk-cotton tree (*bombax ceiba*), the badeau (from which the famed Macassar oil is extracted), sumach, ebony, betel, and ginger-plant. Among plants requiring culture, there are the coffee-tree, indigo, cocoa, sugar-cane, the manioc root, benzoin, and tobacco. Mountain rice, of which there are three varieties, is that mostly cultivated, and also maize.

56. None of the larger carnivorous animals or pachyderms inhabit the islands. Deer and wild hogs abound, together with the babyroussa and herds of antelopes. Pouched animals, unknown in the Sunda Islands, here first occur. Here also are found the chameleon and flying-dragon, etc. Snakes are numerous, and some of them exceedingly deadly in their poisons. Among domesticated animals are some small but vigorous horses, buffaloes, goats, sheep, and pigs.

57. The mineral products of the island are—gold, found in all the valleys of the northern peninsula, which is often convulsed by earthquakes and abounds in sulphur. Copper of good quality occurs at various points, and in Macassar tin as pure as that of Banka. Diamonds are sometimes found almost at the surface of the ground, and precious stones are carried down in the sand of the torrents.

58. The oldest inhabitants of Celebes are undoubtedly the Alfuries of the interior. Those of Celebes are of middle stature, fairer in complexion than the Malays, and milder and more intelligent than the Alfuries of other islands. But by far the finest race in Celebes, and, indeed, in the whole Archipelago, is the Bugis, supposed to have come originally from Borneo. Like the Dyaks, they are a remarkably handsome race, physically resembling the Polynesians far more than the Malays. The Alfuries have their own vague superstitions. The more civilized inhabitants profess Mohammedanism; but previous to the introduction of that faith, the Hindoos had brought their religion to the island, and the natives say that there are fine Hindoo monuments in the interior.

59. The people are divided into several independent states, and their most usual form of government is the federal and republican, combined with the monarchical and elective principle. The native princes recognize the authority of the Dutch, who have had a footing in Celebes ever since 1660, when they expelled the Portuguese. The population is variously estimated, and is probably about 2,000,000 in all. The principal station of the Dutch is Fort Rotterdam and the small town of Vlardlingen, both erected on the site of the ancient city of Macassar, which has a fine and secure roadstead near the southwest extremity of the island. The principal native state is the kingdom of Boni, on the east coast of the southeast peninsula.

60. The native annals of Celebes reach back with any certainty to only about 400 years, and exhibit a history full of wild energy and warfare. In 1512, when the Portuguese first visited the island, they found but few Mohammedans in it, and it was not until a century later that Islamism was generally adopted. The Macassars first conquered the Bugis, and compelled them to become followers of the Prophet. Afterward the Bugis revolted, and in turn, aided by the Dutch, subdued their oppressors. But even with the aid of their European allies they failed in establishing a firm government; and the system of monopoly, now wisely abandoned, but long forced by the Dutch on all the native chiefs, proved in every way destructive to the prosperity of the island.

61. Adjoining Celebes are numerous large and small islands, and some of them are of considerable extent and value, as Sanguir and Siao, off the northeast point; the Zulla Islands, Bambung, Banjay, Waxway, Waiwangy, Boutong, Panjasani, etc., off the east coast; and Cambyna, Salayer, Tiger Isles, Scheidan Isles, Kalatoa, etc., off the south coast. These are under native chiefs, and belong only nominally to the Dutch.

62. The Moluccas are situated between Celebes and New Guinea, and comprise the large islands of Ceram, Gilolo, and Bouro, and many smaller islands, as Amboyna, Batshian, Obe, Waigiou, etc. They are mostly mountainous, volcanic, and very fertile, producing nutmegs, cloves, and other spices; sago, as the chief article of food, and fine woods and fruits. Around them are many pearl and trepang fisheries. The population consists of Malays, Papuans, Chinese, Japanese, and some Europeans.

AUSTRALASIA.

1. Australasia, as a generic nomenclature, applies to all the lands and islands lying southeast of the Asiatic continent; but in the present instance its signification is more limited, and refers only to that section of Oceanica having the large continental island of Australia as its nucleus. Under this head will therefore range all the islands lying between the equator and 50th parallel of south latitude, having a boundary eastward on a line drawn obliquely from longitude 165° east on the first, southeast to 170° west on the latter parallel, and a west boundary marked through the seas separating it from Malaysia and between latitudes 15° and 50° south along the 95th meridian. Included within this demarkation, the principal islands are—Australia or New Holland (the largest island in the world), Tasmania or Van Diemen Land, New Zealand, New Guinea, New Britain, New Ireland, the Solomon Isles, New Caledonia, etc. The land area of these islands is about 3,500,000 square miles; and the population, including the aboriginal tribes, may be estimated at two millions and a half souls.

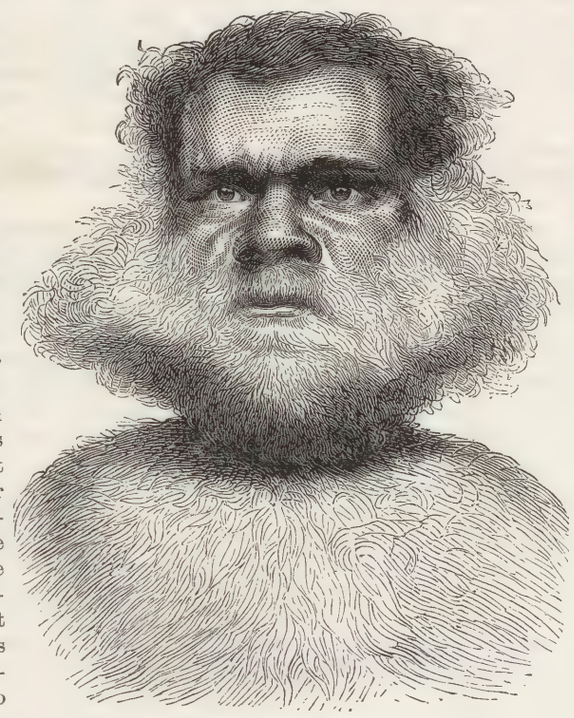
AUSTRALIA OR NEW HOLLAND.

2. Australia lies between the Indian and Pacific oceans, southeast of Malaysia, between latitudes 10° 40′ and 39° 15′ south, and longitudes 113° 20′ and 153° 20′ east. It is the largest island in the world, and may not improperly be termed a continent. Its greatest length, east and west, is about 2,400 miles; and its breadth, north and south, varies from 1,600 to 1,900 miles. Area about 3,000,000 square miles.

3. Australia is singularly compact, and, when its vast extent is taken into account, presents no great variety of surface or irregularity of outline, there being no remarkable indentations except the Gulf of Carpentaria on the northeast, though there are also several large bays and good harbors. The coast on the east and part of the south is traversed by a ridge of rugged mountains at distances varying from 30 to 90 miles, and in some places rising to the height of 7,000 feet; on the south, from Cape Leuwin to Spencer's Gulf, the coast is low

and sandy, and the west and north coasts are also generally low, with some moderate elevations at intervals. The interior is believed to consist of an immense plain, the hilly districts rising from it like islands, and so sterile and sandy that no traces of vegetation occur in vast districts.

4. Mountains appear to be confined to the coast region, and to inclose the desert plains. The most elevated and known range is that extending along the east coast, and which is named by the natives "Warragongs," and by the settlers Australian Alps. These have three subdivisions, namely, the Liverpool Range, the Blue Mountains, and a third yet nameless, stretching far to the north of the 32d parallel. The chain commences near Cape Wilson, the most southerly point of the island, and probably extends with little interruption to the north shore. These mountains, though not attaining the altitude of the great summits of Asia and America, on account of their abruptness, present scenes of great wildness and grandeur, exposing to view immense precipices and gigantic fissures, with nearly perpendicular walls of from 1,700 to 3,000 feet; and some summits are covered with snow the year round. Another range, commencing near the south coast, at Portland Bay, longitude 142° 25′, after a north course for some distance, sinks into grassy hills, which connect it with the Alps; and another chain runs north from Cape Jervis and South Australia to Lake Torrens; besides which there are several detached ranges and isolated peaks. On the southwest there is a range under various local names, none of the summits of which are believed to reach above 3,000 feet in absolute height.



NATIVE MAN OF AUSTRALIA.

5. The geology of Australia is exceedingly simple. The strike and direction of the principal range of hills is, with one exception, from north to south. Tertiary rocks prevail on the south, north, and west coasts, expanding on the southeast into a vast tertiary plain, traversed by the Murray and Darling rivers. Two other immense tertiary plateaus occur on the south and north coasts—the former lining the great Australian Bight and the latter the Gulf of Carpentaria, and both spreading horizontally for unknown distances into the interior. On the east coast palæozoic rocks, basalt, and granite occur in alternate patches along the whole coast from Bass' Strait to Cape Flattery, the last-named constituting the entire floor of the west portion of New South Wales, and extending into the interior of the island.

6. It had been intimated many years ago that gold existed in the Australian Alps; but it was not verified till April, 1851, when Edward Hargreaves announced to the colonial authorities of New South Wales that he had discovered gold near Bathurst, 140 miles west-by-north Sydney. This was soon followed by richer discoveries in Victoria, at Ballarat, Mt. Alexander, Lake Omeo, and other places. But the mineral resources of Australia are not confined to these gold-fields. It has also rich deposits of copper, tin, manganese, iron, and argentiferous lead ores. The first is found in great abundance, especially in South Australia, where mines were being successfully worked when the discovery of gold led for a time to their almost entire abandonment. There are also rich copper mines in Victoria. The earthy minerals are—marble, susceptible of a high polish, and suitable for statuary and ornamental purposes; granite, limestone, and sandstone; slate and potter's clay; coal, chiefly in New South Wales, and sand suitable for the manufacture of glass, etc.

7. A scarcity of water, whether in the form of rivers or lakes, is one of the prevailing characteristics of Australia. Along a coast-line of not less than 8,000 miles few rivers of any considerable magnitude discharge themselves into the sea—most of them being absorbed before they reach it; while on the south coast there is not a single water-course to be found from Port Lincoln to King George's Sound, a distance of more than 1,500 miles.

8. Among the largest known rivers are the Hawkesbury, Richmond, Hunter, Murrumbidgee, Murray, Lachlan, Macquarie, and the Darling. The Murray, with its large branches, the Murrumbidgee and the Darling, is the great river of Australia. As in the case of the Mississippi and Missouri, it might be questioned which is the main stream; but, following the custom of geographers, it is conceded to the Murray, though the Darling appears to be the longer branch. The Murray, with its branches, the Murrumbidgee, Lachlan, and Darling, with their sub-tributaries, run mostly in a west and southwest direction, and drain the western slope of the Alps through a space of from 800 to 1,000 miles, from the sources of the Murray on the south to those of the Darling on the north. The other rivers are the Hastings, Manning, Clarence, and Brisbane on the east coast, and the Fitzroy, Victoria, Adelaide, Flinders, and Albert on the north and northwest coasts. The latter is from 12 to 15 feet deep, and its shores afford the finest specimens of river scenery. A peculiarity of these rivers is their sudden rises—they being one day merely dry channels or a series of sandy pools, and the next deep rivers. The Hawkesbury has been known to rise 95 feet in a few hours, converting fruitful plains into deep lakes, and overwhelming with destruction the neighboring farms.

9. Some conjecture the existence of a vast inland sea or lake, as many rivers have an inward flow; but these, as in other hot and desert countries, may be evaporated or absorbed by the sand. The largest of the lakes or swamps yet discovered are lakes Torrens and Alexandrina in South Australia, and Dambeling in West Australia. The first is about 400 miles in length by its circuitous course in the rainy season, but in the dry season it is a mere salt marsh.

10. Like its other features, the climate of Australia is anomalous. From the sterile burning plains of the interior come sweeping hot winds, which fill the air with a fine dust that penetrates everything, and raise the temperature to 110° and 120° and even 130° in the shade in the districts between 25° and 35° south latitude. Long drouths in New South Wales, occurring at irregular intervals and lasting from several months to as many years, destroy all vegetation, convert the streams into mere pools or sand gullies, and fertile lands into deserts, while the herds and flocks perish by hundreds. But on a sudden the rains fall in torrents, the dry channels are filled with rushing floods, and the dusty plains are converted into verdant pastures. Yet with all these inconveniences the climate, especially south of the tropics, is eminently salubrious. Northward much more rain falls, and the diseases peculiar to inter-tropical regions prevail. On the west coast southerly winds blow from October to April (the beginning of the Australian winter), when violent gales from the west and north set in accompanied by heavy rains. On the northwest coast the winds are more various, but the westerly winds are usually constant from September to December. This coast is subject to heavy squalls, of short duration however, from the east and northeast. Monsoons blow with great regularity on the north coast. It may here be stated, however, that Victoria and South Australia are not subject to the great heats and drouths which distinguish New South Wales. The winters are everywhere mild and cattle seldom require to be housed.

11. With the exception of the coast margin, the greater part of this island-continent is given over to hopeless sterility. Within this fertile rim, however—such is the extent of Australia—there is a capability of supporting, if not a dense, a large population. Of the habitable portions it is estimated that two thirds are not adapted to agriculture but only suited to pasture. Australia has no indigenous fruits except some insignificant berries and a kind of chestnut; but most of the fruits of tropical countries, as oranges, lemons, figs, bananas, guavas, pine-apples, etc., and those of colder climates thrive well, and most of the ordinary culinary vegetables are raised successfully. Wheat yields large returns, and every species of corn flourishes; tobacco of fine quality is also grown. The vine, the mulberry, and the olive also flourish. But wool-growing and cattle-raising had been the principal business of the farmer previous to the discovery of gold and the consequent increase of population, which will doubtlessly tend to foster in a larger share the cultivation of wheat and other cereals used for human food. These remarks apply generally to the south and southeast settlements.



NATIVE WOMAN OF AUSTRALIA.

12. The vegetation of Australia is peculiar. Among the native trees are several species of eucalypti, acacias in more than a hundred varieties, river-oak (*casuarina*), the Norfolk Island pine, the fern-tree, palms, the grass-tree, etc. The most remarkable and most beautiful of the Australian trees is the fern, which grows to the height of 15 or 20 feet, when it suddenly spreads out its enormous leaves, each four or five feet in length, in every direction. The palm rises to the height of 70 and 100 feet; but these are limited to the north and east shores. The grass-trees have shrubby stems resembling small palms, bear tufts of long, wiry foliage at their extremities, from the midst of which rise long spikes of flowers furnishing fodder for cattle. The tree called the native cedar is that from which furniture is mostly made. The river-oak is a hard-grained wood, incapable of being split. Rose-wood and sandal-wood are also among the hard timbers. The lily, tulip, and honeysuckle grow to the size of trees. In the north the mangrove is found; while in the interior immense tracts are covered with prickly plants. Among the vegetable anomalies are cherries with their stones on the outside, and trees which shed their bark instead of their leaves.



KANGAROOS.

13. In its zoology, Australia is even more anomalous than in its other features. Here are no ruminant animals, no monkeys, no elephants, rhinoceroses, hippopotami, deer, lions, tigers, nor any beasts of prey. The wild dog is the only carnivorous land animal. But on the other hand the country possesses a number of animals peculiar to itself.

It has 40 species of marsupials, the largest of which is the kangaroo. The most remarkable quadruped, however, is the ornithorynchus, with the beak of a duck and the body of an otter. It is an egg-laying mammal, frequenting rivers and lakes, and their margins, and is about 13 inches in length. Its foot is armed with a spur, through which exudes a dangerous poison. Besides these quadrupeds there are porcupines, flying-foxes, flying-opossums, and flying-squirrels, wombats, sloths, ant-eaters, etc.

14. Among the birds are eagles, falcons and other species of hawks, owls, parrots, parroquets, cockatoos, pigeons, etc., and waders and water-fowl in vast variety, including the gigantic crane, black swan, pelicans, etc. The emu or cassowary is the largest of the Australian birds, and is sometimes found to measure seven feet in height. Reptiles are quite numerous; the most formidable is the alligator, which abounds in the north. Of serpents the most conspicuous are the diamond-snake, and the black, gray, brown, whip, and yellow snakes. The diamond-snake attains a length of 10 to 15 feet and a girth of from 13 to 15 inches. All these are poisonous, and the bite of the yellow snake is almost certain death. Lizards and frogs are numerous, and scorpions, centipedes, and tarantulas are found. Whales and seals are caught off the coast, and fish in large variety are taken in the seas, rivers, and ponds. Among the insects, locusts, bees, ants, etc., abound, and also very large spiders.

15. The aborigines of Australia belong to the negro or Papuan race, are of a chocolate color, and not so stoutly made as the African negro, but much more lithe and agile. In form they are even graceful, with the exception of a general prevalence of protuberant bellies, and for savages moderately quick of apprehension. They are below the average height, with small heads, slender trunks, rounded and muscular arms and legs, long, black though coarse hair, and the whole figure, with the exception above noticed, well proportioned. Their eyes



AUSTRALIAN ABORIGINES.

are large, full, and penetrating. The women, however, are not so well formed as the men; and again, there is considerable difference in the several tribes—those on the east coast being generally superior in intellect, habitation, and vestment to those on the south and west coasts. Some tribes are mild and gentle, while others are fierce and vindictive, and the latter practice cannibalism. But few of the tribes possess regular habitations, though at their fishing stations they erect rude huts, and in the construction of their canoes the northern tribes exhibit considerable skill. In several districts efforts have been made to induce these people to adopt settled and industrious habits, but without much success, and they exhibit generally a great aversion to manual labor, nor has the effort to establish schools among them been more successful. In some cases, however, they have been induced to act as shepherds or stockmen.

16. The entire island of Australia is a British possession, and is divided into the colonies of New South Wales, Victoria, South Australia and Western Australia, and the district of North Australia, each of which will claim a short notice. The population is chiefly collected about the southeastern coast in the colonies of New South Wales and Victoria. Western Australia is very thinly peopled; while North Australia is not even colonized, the settlement at Port Essington having been abandoned, and hence on this coast there are no European inhabitants, but a considerable number of Malay fishermen have settled upon it. The total population (exclusive of Malays and natives) in 1851 was 337,904, of which number 187,243 belonged to New South Wales, 77,345 to Victoria, 67,430 to South Australia, and 5,886 to Western Australia. It has since very rapidly increased, owing to the immigration consequent on the gold discoveries, and may now (1856) be computed at 600,000, more than half being in the Victoria Colony.

NEW SOUTH WALES.

17. New South Wales, forming the southeastern part of Australia, stretches along the South Pacific from Hervey Bay (latitude 26°) to Cape Howe (latitude 37½°), and west with a varying breadth to the 146th meridian. Greatest length, north and south, 800 miles, and breadth from 480 to 760 miles. Area about 480,000 square miles.

18. The surface is much diversified, and presents in its general features a succession of hills and valleys, mountains and plains. A mountain range, varying in height from 3,000 to 6,000 feet, extends north and south nearly parallel to the coast, and at a distance of from 30 to 50 miles inland, taking in the north the name of Liverpool Range, in the center that of the Blue Mountains, and in the south that of the Australian Alps. The intervening space between the mountains and the sea is partly broken by spurs and ramifications, but descends from the west with more or less rapidity, and has a generally undulating surface, intersected by water-courses—in some places well wooded and in others covered with dense brushwood. The mountain range thus described forms the great watershed of the Colony; but the ground on the west, instead of descending rapidly, continues rugged and mountainous for a considerable width, and at last assumes the form of an elevated plateau.

19. The more important rivers from the west slope are the Murrumbidgee and its tributary the Lachlan, which both join the Murray, the Bogan, Macquarie, and Peel, apparently affluents of the Darling, and the Condamine, which, though at first seen flowing north, afterward rounds to the west and probably belongs also to the Darling. The waters of all these are finally collected by the Murray and emptied through Encounter Bay (latitude 35½°, and longitude 139°) into the ocean. Of the rivers issuing from the east slope of the mountains the principal are the Hunter, Hawkesbury, Paramatta, George, Shoal Haven, Clyde, Hastings, and Clarence. None of these are fully developed streams, and have comparatively short courses. Many are, for the greater part of the year, either altogether dry or form a succession of deep ponds or water-holes.

20. The coast-line presents in general bold perpendicular cliffs of sandstone in horizontal strata. Occasionally the cliffs are interrupted by low sandy beaches, some of which stretch to a considerable distance inland. The indentations of the coast are remarkable for the excellence of the harbors they form. Hervey Bay, on the north, by far the largest, is scarcely within the limit of the Colony. Next to it is Moreton Bay, formed between the mainland and Moreton and Stradbroke, two of the largest islands off the coast. South of Moreton the most conspicuous harbors are those of Port Macquarie, Port Hunter, Broken Bay, Botany Bay, Jervis Bay, Sussex Haven, and Two-fold Bay. The greater part of these are now, or are destined sooner or later to become, important commercial centers and seats of population and wealth.

21. In New South Wales, as a general rule, the geological basis is essentially different on the opposite sides of the mountains; on the east it is sandstone and on the west side granite. In connection with the granite, limestone occurs in abundance, and besides being often hollowed out into stalactite caves, sometimes passes into a beautiful close-grained marble. Much of the sandstone belongs to the carboniferous system, and is accompanied with workable seams of excellent coal. One field at Newcastle contains no fewer than five seams, two of five and three of three feet thickness. Other fields equally valuable are known to exist, and, moreover, give indications of containing abundance of iron ore. Copper ore of the richest quality has also been found in abundance. Numerous varieties of the finer pebbles are found in many districts, and are so abundant in the Hunter River that it is said to flow for a considerable distance over rocks of jasper, beautiful agates, opal, and chalcedony.

22. All the minerals above enumerated, however, though valuable, have been thrown into the shade by the discovery, in 1851, of rich auriferous deposits, which, from the great number of places in which gold has been already found, indicate its existence in greater or less quantities over the whole Colony. It may, perhaps, be said to have its seat in all the western mountain country, and is chiefly laid bare in the neighborhood of the streams being the head waters of the Darling and Murray. The quantity of gold hitherto found in the Colony can not be accurately ascertained; but the amount of gold officially entered and exported from Sydney alone up to the 30th June, 1855, had been 1,920,589 ounces, valued at £7,202,212 sterling or $34,570,618.



SCENERY IN THE GOLD DIGGINGS.

23. The soil, where the substratum is sandstone, has more or less of a clayish texture; where the substratum is whinstone, it is invariably a light black mold. Of the natural fertility of both varieties there can not be a doubt, and many crops are taken in succession without any apparent diminution of productiveness. In 1852 the total area under crop was 152,057 acres, and the crops produced as follows:

Crops.	Acres.	Quantities.	Crops.	Acres.	Quantities.
Wheat	82,110	bush. 1,407,465	Millet	54	bush. 731
Maize	25,017	" 717,053	Potatoes	4,079	tons. 13,644
Barley	6,725	" 133,944	Tobacco	731	cwts. 12,530
Oats	2,470	" 49,069	Wheat, etc., for hay	27,598	tons 31,894
Rye	245	" 4,891	Sown grasses for hay	8,028	" 4,711

24. The fruits of native growth are neither numerous nor valuable; but the best of those of Europe have long been acclimated and are everywhere seen in abundance. Some of these fruits are evidently capable of being turned to good account, and accordingly the rearing of silkworms on the mulberry has attracted attention; and the vine is now actually under culture on hundreds of acres, and yields wines of good quality strongly resembling sauterne, barsac, hock, claret, etc. This culture, which is yet in its infancy, is rapidly extending, and promises to become one of the most important interests of the Colony. The cotton-plant and sugar-cane also have been successfully cultivated.

25. But at present the principal revenue is obtained from the pastures, chiefly in the form of wool and tallow. The most unprecedented increase of livestock appears from the fact that the number of horses, horned cattle, and sheep which, in 1825, were respectively 6,142, and 134,519, and 337,622, had so increased, that in the year 1855 their numbers were

148,851, and 1,576,750, and 8,144,119. In the latter year the number of swine was 62,255. Vast numbers of horses are exported to India for cavalry purposes, and horned cattle are also largely exported, and considerable attention has recently been paid to the curing of animal food. The quantity of wool exported from New South Wales in 1828 was 834,343 lbs., and in 1848, 22,969,711 lbs., and in the latter year the export of tallow amounted to 98,213 cwts. These figures, however, refer to New South Wales previous to the separation from it of the Victoria Colony. In 1853 the wool exported from New South Wales alone was 16,674,933 lbs., and the tallow 115,933 cwts.

26. The total foreign commerce of the Colony from 1843 to the end of 1854 is stated in the following table:

Years.	Imports.	Exports.	Years.	Imports.	Exports.
1843	£1,367,223	£894,648	1849	£1,313,589	£1,135,944
1844	780,198	871,268	1850	1,333,413	1,357,784
1845	985,581	1,092,389	1851	1,563,931	1,796,912
1846	1,314,951	1,056,388	1852	1,900,436	4,604,034
1847	1,544,327	1,201,535	1853	6,342,397	4,523,346
1848	1,182,874	1,155,009	1854	5,980,063	4,040,126

The shipping registered as belonging to the Colony, on the 31st December, 1854, consisted of 341 (36,189 tons) sailing vessels and 123 (3,050 tons) steam vessels—total 464 vessels and 39,239 tons.

27. The manufacturing industry of the Colony has made considerable progress, though as yet the production and export of the raw native commodities form the staple occupation of the inhabitants. The most numerous manufacturing establishments are the mills for grinding and dressing corn, turned by wind, water, horse, or steam. There are also manufactories of woolen cloth, hats, soap and candles, and of articles of furniture; distilleries, breweries, iron and brass founderies, rope-yards, and ship-building yards. Another source of wealth to the colonists is the whale and seal fisheries, chiefly carried on in the sea adjacent to the eastern entrance to Bass' Strait or in the strait itself; but of late years this interest has considerably declined.

28. For facilitating inland communication and trade there have been effected many improvements, and various lines of roads, which have been opened at large expense, traverse the settled districts, while others are being constantly built. As yet, however, only one or two short railroads have been brought into operation, but several are projected; and all the sea-board towns have communication by steam-vessels plying regularly. A regular post is also established, and all letters not exceeding half an ounce in weight are carried and delivered at a uniform rate of twopence. Newspapers are exempt from postage charge.

29. According to the census of 1851, New South Wales contained 187,243 inhabitants—106,229 males and 81,014 females. These were classified according to religious belief as follows—Church of England 93,137, Roman Catholic Church 56,899, Church of Scotland 18,156, Wesleyan Methodist 10,008, others Protestant 6,472, Jewish 979, Mohammedan and Pagan 852, and others not ascertained 740. The number of pupils attending school was 21,065. The population at the end of 1852 was estimated at 208,254, in 1854 it was 251,315, and in 1856, 266,028. At the last date there were 4,800 engaged at the mines, 16,700 in agriculture, and 12,300 in raising livestock.

30. The government of the Colony is vested in a governor-general and an executive council, appointed by the crown; and of a legislative council (of not less than 21 members) and an assembly of 54 members, elected by the freeholders and others qualified to vote. The affairs of the Colony are administered without reference to the mother country, but any acts of the legislature contravening the laws of Great Britain are *de facto* void. The judiciary consists of county courts of requests, circuit and sessions courts, and a superior court. For ecclesiastical purposes the Colony is divided into the dioceses of Newcastle and Sydney, the latter being the metropolitan see of Australasia. The colonial revenue in 1854 amounted to £679,636, and the expenditures to £539,845.

31. Sydney, the capital, is situated on Sydney Cove, on the south side of Port Jackson (latitude 33° 52′, longitude 151° 14′), and stands partly on a freestone promontory, having Darling Harbor on the west, and partly in a narrow valley. Its streets, except in the older parts, intersect at right angles, are spacious, well paved, and lighted with gas. The houses seldom exhibit taste, but are substantial and commodious. George and Pitt streets, however, present ranges of handsome edifices and elegant shops. It has extensive and increasing suburbs, as Pyrmont and Balmain across Darling Harbor, Wooloomooloo and Henrietta-Town on the east, Paddington and Surrey Hills to the southeast, Redfern and Chippendal to the south, and Camperdown, Newton, and the Glebe to the southwest. The most important public buildings are the churches, about 20 in number; the other buildings and institutions worthy of notice are—the Government House, the University (founded 1852), the Sydney and Australian colleges, a normal and several other superior schools, the Court House and Jail, a theater, a museum, the legislative and executive council-chambers, the Barracks, Custom House, Public Library, the markets, and several hospitals, etc. For commercial purposes Sydney enjoys extraordinary facilities. Its haven, about 15 miles long and in some parts three miles wide, is completely land-locked and indented with numerous creeks, with a depth of water admitting the largest vessels to its quays. For its defense fortifications have been erected on all the commanding points. The principal exports are wool, tallow, and hides, and the produce of the southern whale fisheries. To these gold has been lately added. The chief imports are grain and provisions; tea, coffee, sugar, etc.; wine and spirits; British manufactures generally, etc. Being the chief commercial center, it monopolizes at least four fifths of the whole commerce of the Colony. With the other settlements it has regular communication by steamers, coaches, and other means. The city was founded in 1788, and in 1842 was incorporated. In 1856 it contained 14,520 houses and 80,000 inhabitants.

32. Paramatta, on the river of the same name, at the head of Port Jackson, 13 miles west-northwest Sydney, and connected therewith by railroad, consists mostly of a single street, but contains the summer residence of the governor; also a college, an observatory, and two lunatic asylums. Windsor, on the Hawkesbury, is a town of 8,400 inhabitants, 28 miles northwest Sydney, with an active trade. Newcastle, on Port Hunter, 70 miles north-northeast Sydney, has a large export in coals, and is, on the whole, a flourishing town. Maitland, on the Hunter River, 14 miles from Newcastle, consists of two towns—in East Maitland is the jail and court-house; in West Maitland, the most thriving, are numerous large stores, etc. Population (1856) 15,300. Good coal is abundant in the vicinity. Bathurst, on the Macquarie, 98 miles west-northwest Sydney, being the principal town in the gold region, has rapidly increased in population and wealth. It is also a noted wool market. Population (1856) 12,000. Goulburn, 125 miles southwest Sydney, is a thriving town of 7,000 inhabitants, near the head of the Hawkesbury River. Brisbane, in the north, is situated 10 miles up the river of the same name, and has an increasing export of wool, etc. Population (1856) 5,800. Brisbane River enters Moreton Bay near latitude 27½°, and is ascended by the tide nearly 50 miles from the sea. Other towns of note are—Boyd, on the Towamba, where it falls into Two-fold Bay; Cambelltown, on the coast, 20 miles south from Sydney; Liverpool, on George's River, 16 miles southwest Sydney; Port Macquarie, at the mouth of the Hasting's River, etc.

33. In 1770, Captain Cook, after sailing round the east coast of Australia, landed on a low swampy creek, to which, from the number of plants found in it, he gave the name of Botany Bay, and to the whole coast that of New South Wales. In 1788, Captain Arthur Phillip, the first governor, arrived out with 757 convicts. In its first settlement the Colony suffered much from scarcity of provisions, and afterward more from mismanagement. From this time to 1840 Botany Bay was the principal penal settlement of Great Britain, in which year the introduction of convicts was prohibited and the free-labor system encouraged. In 1843 representative institutions were introduced, and the Colony became so flourishing that in 1850 it was deemed necessary to erect its southern portion into the Victoria Colony, and to grant to both more extensive franchises. In May, 1851, the discovery of gold was announced, and a new era of prosperity dawned on the Colony; and again, in 1854, the government was further liberalized, and all but in name made independent.

COLONY OF VICTORIA.

34. Victoria, formerly Port Phillip District, is situated between latitudes 34° and 39° south, and longitudes 141° and 150° east; and bounded north and northeast by New South Wales, from which it is chiefly separated by the Murray River; south by Bass' Strait, separating it from Van Diemen Land; and west by South Australia. The length of the Colony is about 480 miles, and average breadth about 200 miles. The area may be estimated at 96,000 square miles.

35. The coast is generally low and unbroken in the west, from the mouth of the Glenelg to Cape Otway, between which points are situated the available harbors of Portland, Port Fairy, and Warnambool; and in the east from the harbor of Port Albert (longitude 147°) to Cape Howe, the eastern extremity of the country, between which latter points the only feature which tends to diversify its monotonous appearance are a series of lagoons, of which Lake King is the largest. Between Cape Wilson and Cape Otway a remarkable contrast is presented, and the coast becomes skirted by perpendicular cliffs, rising from 500 to 1,000 feet above the sea, and containing openings into numerous bays and anchorages. Of these the most remarkable is Port Phillip, which, scarcely two miles wide at its entrance, forms a kind of inland sea, stretching north and south about 35 miles, and expanding east and west near its center to 50 miles, although its average width does not exceed 20 miles. Separated from Port Phillip by a low promontory is the well-formed but shallow harbor of Western-Port; and still farther east, the most remarkable feature of the coast is Cape Wilson, a promontory connected with the mainland by a low, sandy isthmus, but consisting of a lofty mass of granite with summits rising to the height of 3,000 feet, and usually enveloped in mist. On the north of this is the last great indentation of the coast, Corner Basin, protected south and east by several low sand-islands. The entire sea-board has a southern aspect, and following its external sinuosities is not far short of eight hundred miles in length.

36. The interior is well diversified by mountains and plains, but is chiefly characterized by the latter, which are often of great extent. The mountains form two principal ranges near the opposite extremities of the Colony: the Alps on the east, and nearly parallel with the coast; and the Grampians on the west, where they form three distinct masses or ridges. The highest summits of these chains are, respectively, Mt. Kosciusko 6,500 feet, and Mt. William 4,600 feet. Notwithstanding the position of these two chains, at opposite extremities, they are visibly connected by their ramifications, so as to form parts of the same mountain system, and they constitute a continuous watershed, sending the whole drainage of the Colony either north to the Murray or south to the ocean. It may be considered as a vast region of primary and transition formation, extending east and west for about 300 miles, with a breadth varying from 100 to 150 miles, exhibiting numerous cones and distinct craters, apparently submarine, and composed chiefly of metamorphic rocks, overlain on their slopes by more recent secondary and tertiary formations. Within this region lie all the gold-fields of Victoria.

37. The rivers which descend from this watershed are more numerous than important, and most of these, except the Murray, the common recipient of all from the north side of the shed, are only periodically, or after heavy rains, full streams. The chief feeders of that great river come from New South Wales, while from the south it receives only a few comparatively paltry streams, as the Mita-Mita and Ovens toward the east, and the Goulburn, Campaspé, and Loddon toward the center. On the south side of the watershed the principal rivers are the Margalong, Tumbo, Nicholson, Mitchell, Avon, Macalister, and Latrobe, which contribute to form a chain of lagoons; the Yarra-Yarra (navigable to Melbourne for vessels of 200 tons), the Marriburnong, Werribee, and Little rivers, all falling into Port Phillip and the Glenelg, which forms part of the west boundary.

38. Lakes are so numerous in Victoria as to form one of the principal physical features of the country. Few of them, however, are fed by perennial streams, and hence many which at one season cover large areas dwindle away at another, or become altogether dry. By far the largest, Lake Corangamite, 50 miles west of Geelong, is of a very irregular and serpentine form, about 90 miles in circuit, and though fed by several fresh-water streams is perfectly salt. Lake Colac, about eight miles east of this, though only 10 or 12 miles in circuit, is, however, the most important, from the fact of being fresh, and affording water to numerous flocks of sheep that feed in its vicinity.

39. The agricultural capacities of Victoria are excellent, and the soil, which is of light texture, possesses great natural fertility, and is capable of raising cereal crops of the best quality. The vine also thrives well, and both the ordinary and many of the finer fruits and vegetables of the north temperate zone have already been acclimatized, and are abundant.

The total area under crop in 1852 was 39,663 acres, but in 1855 115,135 acres, and the produce in the year ending 31st March, 1853 and 1856, as follows:

		1853.	1856.			1853.	1856.
Wheat	bush.	498,704	1,148,011	Potatoes, etc.	tons	4,512	62,373
Oats	"	96,980	614,614	Hay	"	21,287	83,276
Barley	"	9,431	22,116	Grapes	lbs.	?	488,832

—and the yield of wine was, in 1853, 4,512 gallons, and in 1856, 8,374 gallons, with one tenth as much brandy. The number of occupiers in 1856 was 4,326. On the 31st December, 1856, the livestock in the Colony consisted of 33,430 horses, 534,123 horned cattle, and 4,577,872 sheep. The vast number of sheep illustrates the progress which Victoria has made in what was, previous to the gold discoveries, its only great staple, and it now furnishes one half of the whole wool imported into Great Britain; in 1838 it exported only 175,000 lbs., but 1848, 10,525,000 lbs., and in 1853, 20,842,591 lbs.

40. The year 1851, however, gave to Victoria another and more valuable staple. In April of that year gold was ascertained to abound within the Colony, and this fact has led to a vast



GOLD DIGGINGS.

increase in population and wealth. The sites of this mineral extend over the whole basin of the Murray, partly east among the Australian Alps, but chiefly in the west among the east ramifications of the Grampians. The largest continuous field, however, is that which has Mt. Alexander for its center. In 1855 the number of gold-fields in course of being worked was 46, extending over no less than five degrees of longitude; and about 100,000 miners were engaged in collecting the mineral. The proceeds since the commencement of operations to the close of the years 1852–3–4–5, were as follows:

Years.	Registered.	Not registered.	Total.	Value (at £4).
1852	3,159,322 oz.	1,088,325 oz.	4,247,647 oz.	£16,990,538
1853	2,274,152 "	816,190 "	3,090,342 "	12,361,368
1854	1,831,434 "	361,264 "	2,192,698 "	8,770,792
1855	2,234,296 "	729,864 "	2,964,160 "	11,856,640

—making a total for four and a half years' labor, 12,494,847 ounces.

41. But it ought to be observed that gold is not the only source of mineral wealth possessed by Victoria. Copper, found so abundantly in South Australia, without doubt exists here also. Limestone, granite, and sandstone are already worked in quarries apparently inexhaustible; and an extensive field of coal has been traced along the coast; plumbago is also abundant. With all these sources of prosperity a splendid future awaits this comparatively infant but already flourishing Colony.

42. The seaward commerce of Victoria is represented in the annexed table:

	1850–1.	1851–2	1852–3.	1853–4.	1854–5.
Value of imports	£744,925	£1,056,437	£4,043,890	£15,842,637	£
" exports	1,041,796	1,423,909	7,451,549	11,051,543	

Inland commerce has been hitherto much impeded by the want of good roads, but these hindrances have already (1856) been partially overcome, and three railways, which will bring the principal gold-diggings into connection with Melbourne, Geelong, and Hobson's Bay, are in course of construction and partially completed Efforts are also being made to establish the electric telegraph between the principal seats of population and the capital. The number of sail-vessels registered in the Colony on the 31st December, 1854, was 272, of 31,985 tons: and of steamers 12, of 29,395 tons.

43. In consonance with the inviting prospects held out to immigrants, the population has been rapidly increased from that source. In 1851, it was 77,345; in 1852, 151,127; in 1853, 203,587; in 1854, 273,865; in 1855, 319,379, and in 1856, 352,152. In March, 1857, it was 403,519. of which number about 40,000 were Chinese, and 258,116 males and 145,403 females.

44. The Colony received a new charter in 1855, the leading features of which are, that, with a few reserved points in reference to imperial rights, the government shall manage its own affairs, and in particular the administration of its lands. The legislature consists of two chambers, the council having 30 members and the assembly 60. Members of the council must be natural-born subjects, at least 30 years of age, and possessed of lands or tenements in the Colony worth £5,000. Members of the assembly must be at least 21 years of age, and possessed of lands valued at £2,000. Judges, ministers, and persons convicted of treason or felony are excluded. No person unable to read and write is to be placed on the register of voters. The imperial authority is represented by a lieutenant-governor. Justice is administered by a chief and three puisne justices, who have criminal jurisdiction, and exercise also the powers of the Queen's Bench, Common Pleas, and Exchequer courts. The colonial revenue and expenditures since 1850 have been as follows:

Finances.	1850–1.	1851–2.	1852–3.	1853–4.	1854–5.
Revenue—General	£124,469	£180,004	£845,834	£1,648,423	£3,535,885
" —Territorial	136,852	199,820	730,967	1,553,825	1,426,448
" —Total	261,321	379,824	1,576,801	3,202,248	4,962 333
Expenditures	208,763	409,884	734,961	3,265,009	4,716,696

45. Government grants aid both to churches and schools, and alike to all denominations. The annual grant for religious purposes is £50,000, of which not more than half is to be disbursed on account of ministers' stipends. The sum granted in aid of denominational and national schools in 1853 was £7,763. The condition of education and religion in the year named is shown by the following table:

	SCHOOLS.			CHURCHES.		
Description.	Number.	Scholars.	Income.	Denominations.	Number.	Capacity.	Attend.
Denominational	89	6,836	£12,552	Church of England	13	3,190	2,930
National	9	533	943	Wesleyan Methodist	17	5,000	5,000
Total	98	7,369	£13,495	Presbyterian	7	1,800	1,305
Private	17	472	—	Other Protestant	5	1,590	1,340
				Roman Catholic	6	4,400	3,845

—and there was also a Jews' synagogue, making the whole number of places of worship 49, with a capacity to accommodate 16,060 persons. The Colony comprises the diocese of Melbourne. In 1855 there were in the Colony 536 schools, and 24,494 scholars, and the new university of Melbourne had 168 students; of the schools, 311 were denominational, 59 national, and 166 private, with a total income of £115,098.

46. Melbourne, the capital and seat of government, is situated on the Yarra-Yarra, near its mouth, in Port Phillip. Latitude 37° 48′ 36″, and longitude 144° 57′ 43″—445 miles southwest Sydney. It is principally laid out in a low, fertile valley, while the extremes are carried over two picturesque eminences. The streets are broad and regular, and more than half the houses are built of stone and brick, and many have fine gardens attached. Among the principal edifices are the banking-houses, the Custom House, the Mechanics' Institution, the new government offices, City Hall, the Court House, Jail, etc., and the places of worship, university, and school-houses. A botanic garden has been planted on the south bank of the Yarra, a mile east of the town. Four newspapers are published here. The town is well supplied with water from the river, and lighted with gas.

47. Melbourne is not favorably situated in respect to means of communication. The Yarra, which is very narrow, has only depth enough to float small vessels, and close above the town it is interrupted by falls. The proper harbor, accordingly, is at the mouth of the river in Hobson's Bay, and though only two miles distant by land, is from seven to eight by river. Allowing for some difficulty of entrance from the narrow channel, commencing between ports Nepean and Lonsdale, and the shoals which line its sides, it is scarcely possible to conceive a finer expanse or a more sheltered and easily navigated bay than Port Phillip, which forms a basin of from 60 to 70 miles in circuit. In many central places the depth varies from 12 to 15 fathoms, and even near the shore is in general from five to seven fathoms. At Williamstown, where vessels for Melbourne anchor, it is five fathoms; and in Geelong Bay, the other most frequented anchorage, the depth varies from two to seven fathoms. The facilities for communicating between Melbourne and the shipping, however, have been greatly



CITY-HALL, MELBOURNE.

improved by the construction of the railway to Hobson's Bay, extending from the town to the beach. By far the larger portion of the gold from the Victoria diggings finds its way to Melbourne. The principal sites tributary to it are those of Mount Alexander, 70 miles northwest; Ballarat, 60 miles west-northwest; and the Ovens, 130 miles northeast.

48. The rapid growth of the town, with respect to its commerce, is without a parallel in the history of the world. During the year 1852 the shipping inward increased from 669

vessels, 126,000 tons, to 1,657 vessels, 408,000 tons, and the value of imports rose from £1,056,000 to £4,044,000; and in 1853 they amounted to £16,000,000. The value of produce exported in 1851 amounted to £1,423,000, in 1852 to £7,452,000, and in 1853 to £11,061,000. Among the exports of the latter year were 3,090,342 ounces of gold, and 20,842,591 pounds of wool. Steam communication has been established with Great Britain, and regular sailing-packets ply to and from the United States. Steamers also run between Melbourne, Hobart Town, Sydney, and other ports of the adjacent colonies. The town was founded by Sir Richard Bourke 19th May, 1837. In 1841 it contained 4,479 inhabitants; in 1846 the population had risen to 10,955, and in 1851 to 22,119. The estimate for 1856 was 100,000.

49. Williamstown, the port of Melbourne, is built on a low sand-flat at Point Gellibrand, on the west side of Hobson's Bay, about seven miles southwest from the city, and is connected therewith by a railroad. Geelong, the second town in the Colony, and an important shipping-place, is pleasantly situated on the southwest shore of Port Phillip, at the head of Coria or Geelong Bay. It is regularly built, well supplied with water, and is steadily advancing in population and trade. Smaller vessels ascend to the town, but those of greater burden discharge at Port Henry, 10 miles down the bay. A railroad to Melbourne has been constructed, and other numerous and extensive improvements are being carried on. Near the mouth of the Yarra, on the northeast shore of Port Phillip, are the neat villages of St. Kilda and Brighton, which are resorted to as bathing-places by the citizens of Melbourne.

50. The town of Portland is built near the western extremity of the bay of the same name. The harbor is inconvenient and exposed, but is the shipping-place of a great deal of wool and other produce of the district. There are also some whaling establishments in the place. Belfast is an active and thriving town on Port Fairy, 55 miles east Portland. It is famed for its butter and cheese, and lies amid some of the best tillage-land in the western division of the Colony. Warnambool, near Belfast, is a small sea-port, having frequent intercourse by trading-vessels with Melbourne and Portland.

51. Ballarat, the seat of the gold-diggings of that name, has become a neat, well laid out, and commodious town. The principal towns other than those above-mentioned are—Alberton, Avoca, Ballan, Beechworth, Benalla, Bendigo, Brunswick, Buninyong, Castlemain, Chepstow, Colac, Flemington, Kilmore, Kyneton, Mount Alexander, Port Fairy, Prahran, Richmond, Sandhurst, Wangaratta, etc.

52. Port Phillip was discovered in 1802, and became the general name of the whole Colony, which, after it had been partially settled by immigrants, chiefly from Van Diemen Land, was formally recognized in 1835, when the first sale of crown-lands took place. It formed the southern division of New South Wales till 1851, in which year it was erected into a separate colony, and given a liberal constitution, and in honor of the queen assumed its new name. Since this period its rapid progress in material prosperity is unparalleled in the annals of British colonization. In 1855 its constitutional franchises were materially extended.

COLONY OF SOUTH AUSTRALIA.

53. South Australia, occupying the middle south portion of Australia, extends between latitudes 26° and 38° south, and between longitudes 129° and 141° east. Extent east and west about 700 miles, and north and south from 400 to 820 miles. Area 308,196 square miles.

54. The coast-line has a length of about 1,500 miles, but through all this distance only two large indentations occur—Spencer Gulf and the Gulf of St. Vincent, the latter protected from the sea by Kangaroo Island, and separated from the former by Yorke peninsula. Southeast of these is Encounter Bay, separated from the Gulf of St. Vincent by Kangaroo Island, and the peninsula having Cape Jervis for its southern projection. An arm of this bay, called Lake Alexandrina, receives the Murray. The western part of the coast is but little indented either by bays or inlets, and is almost wholly destitute of running waters.

55. The interior is generally undulating with several ranges of low hills, and in the eastern section some low mountainons tracts. The direction of these mountains, except the Gawler Range, which runs east and west across the base of the triangular peninsula, immediately west of Spencer Gulf, is north and south. The whole western region is represented to be a low and sterile country, covered with wiry grass or various species of spinal plants. The best agricultural or pastoral lands occupy the southeast section, drained by the Murray and the smaller streams, emptying into the great bays heretofore mentioned. On the whole, however, the eligible portion of the territory is very small for so large a surface, and perhaps does not exceed a fifth of the entire area.

56. The Murray is the largest river, not only of this Colony, but of the whole island. Its remotest sources are in the Alps, not far from the eastern shore, and entering South Australia near latitude 34°, flows west for about 80 miles, when it suddenly turns to the south, and runs in that direction to the sea, before entering which it expands into the large lake called Alexandrina. This river, which within the Colony has a uniform width of 300 yards, and a minimum depth of 12 feet, runs on a level bottom of about four miles wide, and between the stream and the base of the higher grounds on both sides are flats of greater or less extent overgrown with reeds. The soil is of the richest kind, and as black as ebony. Lake Alexandrina is about 30 miles long by 15 miles in its widest part, with a depth of from 30 to 100 feet, and is united with Encounter Bay by three narrow channels. The Murray is navigable for 800 miles from its mouth. The only large lake in the interior is Lake Torrens, the waters of which are salt, and in summer dry up. It extends from the head of Spencer Gulf, circling to the northeast and east for nearly 200 miles, and appears to bound the fertile country to the southeast, as a barrier against the more desert sections.

57. The climate of South Australia is one of the finest in the world, resembling that of the south of Italy. During the wet season, from March to October, the rains are frequent and heavy, and the long drouths of the east coast are here unknown. All kinds of grain are successfully cultivated; maize grows well, and also potatoes. There are no edible native fruits, but all varieties of fruit-trees have been extensively introduced, and flourish as in their indigenous soils. The orange, lemon, olive, and mulberry are cultivated, and every approved variety of grape is grown. Sheep and cattle are not so numerous as in the eastern colonies, yet the former number about 1,500,000, and the latter about 10,000. These are scattered over about 10,000,000 acres under lease from the government.

58. South Australia is more valuable as a mineral than as an agricultural country. Iron ore is found in many places, especially in the deserts, and copper ore is very widely distributed, and of the richest quality. Lead also is abundant, and a considerable quantity of gold



SHEEP FARMING.

has been found. Copper, however, is the staple product, and is extensively worked. The ore of the Burra-Burra mines is peculiarly rich, containing 75 per cent. of metal, and being a pure oxyd requires no flux to smelt it. This mine alone yields about 20,000 tons annually. The principal gold-fields are at Echunga, 23 miles southeast, and on Field River, about the same distance south from Adelaide. Precious stones, as rubies, amethysts, emeralds, etc., are abundant.

59. Manufactures have not made much headway. In Adelaide, however, are several founderies, and in that and other settlements manufactures of barilla, soap, leather, earthenware, etc. Ship-building has also been commenced. Commerce has rapidly increased, and kept pace with the development of the colonial resources. In 1851 the value of exports, exclusive of coin and bullion, was £570,816, and of imports £845,572; in 1852 they were respectively £736,267 and £538,973, and in 1854 £823,104 and £2,054,453. In the last-named year the coin and bullion exported was $499,718.

60. The government is vested in a lieutenant-governor, an executive council, and a legislative council. The executive council consists of the governor, secretary, advocate, and surveyor-general. The legislature, which was instituted in 1851, consists of 24 members, 8 nominated by the crown and 16 chosen by the qualified electors in districts. The main source of revenue is the customs. The revenue in 1852 amounted to £123,462, and the expenditures to £172,839. In 1854 there were £449,429 and £393,288 respectively.

61. For the promotion of education in the Colony an inspector of schools has been appointed, and the government grants aid to the amount of £1 to teachers for every scholar, not exceeding forty, in each school. In 1853 there were 69 schools receiving such aid, and about 3,300 scholars. According to the census of 1851, there were 151 places of worship, and 79 ministers of religion.

62. The capital is Adelaide, on Torrens River, near its mouth in Spencer Gulf. Latitude 34° 55′, and longitude 138° 38′. The city is built on rising ground, backed by woods, and divided by the Torrens into North and South Adelaide. Its streets are regular and the houses well built. It contains the government-house, barracks, a theater, and numerous places of worship; and has good shops and hotels, banks, an insurance office, and assay office. In 1852 there were in the city 27 public schools, attended by 1,497 pupils, besides the College of St. Peter, founded in 1849. The quantity of gold assayed in the year 1852–3 was 412,066 ounces. Port Adelaide, at the mouth of the Torrens, six miles from the capital, with which it communicates by railroad, is a free port, and the center of all the commerce of the Colony. The harbor is accessible for vessels drawing 18 feet of water. The port contains extensive and substantial warehouses, wharves alongside which ships load and unload, a patent slip on which vessels of 1,000 tons can be raised, and a wet dock. Albert Town is a small straggling village, about a mile from the port, and is chiefly occupied by persons connected with the shipping. The population of Adelaide, the port, and Albert Town, which together form one municipality, was 14,577 at the end of the year 1850; it is now (1856) estimated at 22,000. Between Albert Town and Adelaide are several other villages, and otherwise within a range of five miles from the city are a dozen of villages, which may be considered as its suburbs.

63. The county towns, as they are called, are—Gawler Town, 23 miles north; Angaston, farther north and east; and Kooringer, at the Burra-Burra mines; as also Mt. Baker, Nairne, Balhannah, Macclesfield, Strathalbyn, Hhandorf, and Noarlunga, in the district south of Adelaide. A town has also been laid out at Port Wakefield, at the head of the Gulf of St. Vincent, where a considerable quantity of copper from the Burra-Burra mines has been shipped for Swansea. Roads and bridges have been liberally provided for as settlements have been formed.

64. This Colony was founded by the South Australian Company in 1834, but was not practically established before 1837. In 1840 it numbered 14,610 inhabitants; in 1845, 22,390; in 1850, 67,430; and in 1855 about 85,800. In 1844 its great mineral resources were discovered, and from this year dates its career of prosperity.

COLONY OF WESTERN AUSTRALIA.

65. Western Australia comprehends all the countries lying west of the 129th meridian, and this occupies about a third of the whole island. The limits of the Colony, originally established under the name of the Swan River Settlement, however, are much more contracted, but the boundary is not definitely fixed, and is constantly being extended.

66. The coast-line presents much greater diversity than most other parts of Australia. In some parts the sea, for some distance from the shore, is covered with numerous islands, islets, and rocks, which render these countries difficult of access. The northern and northwestern coasts are much broken and indented with wide bays and some narrow inlets, which penetrate a considerable distance inland. Within the confines of the Colony there are numerous estuaries, each of which receives several rivers. Of the few good harbors along this coast the best are—Rockingham, in Cockburn Sound; Albany, in King George's Sound; Banbury, in Port Leschenhault; and Augusta, near Cape Leuwin, on the southern side. At the mouth of Swan River, and at the head of Melville Water, which runs inland for 80 miles, is the port of Perth, capital of the Colony. The southeastern coast, along the Great Australian Bight, is continuous, low, and unbroken.

67. The interior is a *terra incognita*, and in fact little is known of the country except near the settlements. A range, called the Darling Mountains, extends along nearly the whole of the coast of the Colony, at a distance of 50 to 150 miles, and varying in height from 800 to 3,000 feet. In that part bordering on the south coast there are three distinct parallel ranges, running north and south, and terminating severally near King George's Sound, at Cape Chatham, and at Cape Leuwin. On the mountains and higher hills the surface is rugged and stony, on the lower sides the soil is excellent, but in the principal valleys and the lower grounds, where the sandstone formation prevails, it is of very inferior description, except where the rivers have brought down deposit.

68. The rivers on the west coast generally rise at no great distance from the sea: near their source they are mountain torrents; in the lowlands slow streams, liable, however, to sudden rises, and at times they are dry. They offer little or no facility for internal navigation. The Swan River rises on the west side of the Darling Range; it has a bar at its mouth, after passing which it is navigable, though with difficulty, for some distance. The other principal rivers are—the Avon, the Murray, the Canning, the Hervey, the Preston, the Collie, the Vasse, the Blackwood, the Donnelly, and the Kalgan.

69. The climate, though variable, is not so uncertain as on the east coast in the supply of rain and moisture. The average winter temperature is about 58° and that of summer about 76° Fahr. Rain is most abundant in August and September. The height of the dry season is during the harvest in January, when the night-dews are heavy. Seed-time lasts from early in May to August. Every kind of grain is grown abundantly, and the fruits of Europe and the East and South thrive luxuriantly. The forests are constituted chiefly of large mahogany and blue-gum trees.

70. In the Darling Range have been found roofing-slate, limestone, and marl; selenite, silicious and calcareous petrifactions; magnetic iron ore, chromate of lead, galena, and copper. Columnar basalt is found around Geographe Bay, and from thence to Stark Bay a band of coal has been traced a distance of 600 miles. There are many salt lakes and springs in the Colony, and a considerable quantity of salt is manufactured. Guano is found on the islets that lie around Shark's Bay.

71. Though agriculture necessarily occupies a principal place in the industry of the colonists, their exertions are chiefly directed to the raising of stock. Wool, tallow, hides, etc., indeed, are the great staples of export, and large numbers of horses are exported for cavalry use in India. The total exports in 1851 were valued at £22,135, and the imports at £52,351; and the shipping in and out amounted to 30,731 tons.

72. In 1850 the Colony had 5,886, and in 1852, 6,574 free inhabitants. In the latter year there were also 1,434 convicts and 705 military, making the total population, exclusive of natives (about 1,700), 8,711. The government is administered by a lieutenant-governor, with his staff of officials. Schools are provided at the public expense for children of all religious denominations, as well as for natives. There are about 70 places of worship in the Colony, of which 20 belong to the Church of England, which is under the superintendence of the Bishop of Adelaide.

73. The capital, Perth, is built on the right bank of the estuary of the Swan River, near its junction with the Canning. The population is small; the town, however, is improving. Freemantle, on the opposite side of the river, a few miles lower down, is the seat of a convict establishment. Albany is a port-town in the southeast, on King George's Sound, and has a trade in timber. Augusta is a small port on the east side of Cape Leuwin, on the estuary of the Blackwood. Bunbury is the port of a district formerly called Australind. The harbor of Port Leschenhault, upon which it stands, is a good and large one, but it has little commerce. Geraldton is an inland town on the Murchison River, and the seat of a lead-mining region. Guildford is a small town east of Perth. Northam is the most easterly town in the Colony. It is situated on the river Mortlock, east of the Darling Range, and 60 miles from Perth. Toodyay is a town about 20 miles northwest Northam. Rockingham, on Cockburn Sound, has a good port and some trade. Vasse is a small port on Vasse Inlet. Other small towns of little importance are—York, Picton, Clarence, and Waterloo.

74. The Colony was established in 1829, but had never been successful. In 1850, at the request of the colonists, who were much in want of cheap labor, a convict establishment was formed, and up to November, 1854, about 3,000 convicts had been sent. This step has given temporary relief to the settlements, and under the system many highly valuable improvements have been effected, roads and bridges built, lakes and swamps drained, harbors improved, etc.

NORTH AUSTRALIA.

75. North Australia occupies the north portion of Australia east the 129th meridian and north of the 26th parallel. On the north it is washed by the Indian Ocean, and on the east by the Pacific, on which side it is fringed by a congeries of islets, rocks, and sand-banks, called the Great Barrier Reef. East and west, its greatest length is 1,500 miles, and its greatest breadth about 1,000 miles. Area about 800,000 square miles.

76. Little is known of this section of Australia. On the north shore is the immense Gulf of Carpentaria, with an area of 120,000 square miles, and in the northwest the gulfs of Van Diemen and Cambridge. The interior has never been visited, and still remains a blank on the map, except in the southeast part, which, in its physical conformation, resembles New South Wales. In that direction it is mountainous, and watered by many considerable rivers, several of which, as the Victoria and Warrego, cross the boundary into New South Wales, but their ultimate direction has not been traced.

77. A government settlement called Victoria was formed on the west shores of Port Essington in 1838, but owing to the heat and unhealthiness of the climate, unproductiveness of the soil, and want of markets for such produce as might be raised, it gradually declined, and was wholly abandoned in 1849, when the last unfortunates stationed there were finally removed.

VAN DIEMEN LAND OR TASMANIA.

78. Van Diemen Land is an island about 100 miles off the southeastern extremity of Australia, from which it is separated by Bass' Strait; and lies between latitudes 40° 48′ and 43° 37′ south, and longitudes 144° 39′ and 148° 22′ east. In shape it forms an irregular triangle, with its base stretching in a concave curve between Cape Grim, in the northwest, and Cape Portland, in the northeast, and its sides tapering gradually from these points till they meet in the apex at South Cape. The greatest length, measured on the meridian of the apex, is 186 miles, and the medium breadth, on the 42d parallel, 166 miles. Area about 28,600 square miles.

79. The shores are generally bold and rocky, particularly the west, which present long ranges of barren cliffs of columnar basalt, with scarcely an opening except those of Macquarie Harbor and Port Davey. The northeast shores are equally bold and unprovided. In the north, where several low sandy beaches occur, we have, among other harbors, the fine estuary of the Tamar, and in the southeast an almost uninterrupted series of anchorages. D'Entrecasteaux Channel, which stretches for about 30 miles between the south coast and Bruni Island, with a breadth of two to eight miles, and forms the southwest entrance to the Derwent, is a continuous line of land-locked harbors.

80. The interior is remarkably rugged and mountainous. The main chain commences at Cape Portland, where its continuity with the great eastern chain of Australia is made apparent by peaked islands extending across the strait, and pursues a very irregular course, first nearly due south, at no great distance from the coast, till it reaches Oyster Bay, where it turns westnorthwest, and continues in that direction more than half way through the island. It then suddenly resumes its original course, curving gradually round to the southeast, and finally terminating at South Cape.

81. This tortuous range, on one or other of whose flanks all the large streams of the island take their rise, has a mean height of 3,750 feet, and attains its culminating point of 5,520 feet in Mt. Humboldt. The other most remarkable summits occur, not in the main chain, but in two lofty branches it throws off; the one, stretching between St. Patrick's Head on the east and Port Dalrymple on the north coast, presents in succession the summits of Ben Lomond, 5,002 feet, Ben Nevis, 3,100 feet, and Mt. Arthur, 3,900 feet; and the other, breaking off at Mt. Humboldt, proceeds east and terminates magnificently a little west of Hobart Town, in Mt. Wellington, 4,195 feet.

82. The western portion of the island, from the impenetrable nature of its vegetation and its alpine character, has baffled the efforts of the most intrepid explorers, and hence is very little known; but from the snow-capped peaks skirting the horizon to the westward in summer, as seen from the highlands of the interior, it is conjectured that the mountains in that direction rise above the snow-line, which in these latitudes is from 7,000 to 8,000 feet.

83. In all these ranges, and generally throughout the island, the prevailing rocks are crystalline, either produced directly by volcanic action or changed and molded by it, and hence, as might be expected, the scenery is often of the wildest description. Beyond the range of these convulsions, however, regular sedimentary strata, chiefly of sandstone and limestone, are largely developed, and form gentle hills or undulating valleys, equally remarkable for beauty and fertility, and usually watered by copious streams.

84. Among the minerals that have already been turned to account, the principal are freestone, limestone, roofing-slate, and coal. Coal occurs in two fields: one in the southeast, at Port Arthur, and the other in the northeast, near the Douglas. Among metals which may ultimately be made available, are mentioned both gold and silver, lead, copper, and iron. Another product, not, however, of much economical value, but found in great abundance, is silicified wood, much of it of opaline texture and susceptible of a beautiful polish.

85. The river system radiates from the central portion of the island, and issues from lakes and springs at an average altitude of 2,000 feet above the sea. Of these streams by far the largest is the Derwent, which, issuing from the mountain-lake St. Clair (latitude 42°), flows southeast, augmented by the Dee, Ouse, Clyde, Jordan, etc., and after forming a broad estuary, pours its waters into two main channels, that of D'Entrecasteaux on the west and that of Storm Bay on the east side of Bruni Island. Another river of much shorter length, but, from the width and depth of its channel, of scarcely less navigable importance, is the Tamar, which, formed by the junction of the North Esk and South Esk, flows north into Port Dalrymple. The other principal streams are the Huon, in the south; the Gordon, which has its mouth in Macquarie Harbor, in the west, and the Arthur, in the northwest. Great or Clarence, the largest lake of the island, situated near its center, is 15 miles long by 5 miles broad; but, owing to the numerous creeks and windings of its shores, measures nearly 100 miles in circuit. Its scenery is much vaunted.

86. The climate is cooler and more humid than that of Australia, and in respect both of vegetative power and salubrity much superior. The spring months are usually bright and clear, with occasional rain and high winds; the summer-heat, which averages about 70°, sometimes rises to 100° or 110° Fahr., partly owing to a stifling and blighting north or northwest wind, but is almost always tempered by land and sea-breezes; autumn, by far the pleas-

antest season, is generally clear and bright, and free from clouds and mists; nor is the winter severe, and in the lower grounds its moderate and genial showers rather assist than obstruct the labors of the field.

87. The principal natural productions are extensive forests, chiefly of the eucalypti, pine, and acacia species, several of which furnish timber for ship-building and cabinet work. But the large tracts of rich and verdant pasture, well adapted for cattle, but more especially for sheep, form by far the most important sources of wealth. The arable lands lie mostly in the valleys, and have a rich alluvial soil. The indigenous herbivorous animals are mostly of the pouched kind common to Australia, but exist in greater numbers than on the mainland. There also is found a unique animal of its kind, called the "native tiger" by the colonists, being the largest carnivorous animal in Australasia, though not larger than the wolf. The spermaceti whale is very abundant in Bass' Strait, and black whales abound in all the seas round the island; and a very lucrative fishery is carried on along the southern coast.

88. All grains cultivated in temperate climates succeed well in Van Diemen Land. Wheat is of excellent quality, and culinary vegetables and fruits of all kinds are in great abundance. Imported domestic animals have thriven amazingly. In 1854 there were in the Colony 17,384 horses, 103,752 horned cattle, 1,631,308 sheep, and 22,598 swine. The quantity of land under cultivation in the same year was 127,732 acres, of which 49,920 were under wheat, and 35,320 under oats; and 2,284,214 acres were held under pasture licenses. Great Britain almost monopolizes the commerce of the island. In 1851 the exports were valued at £1,172,530, and in 1854 at £1,438,021, and the imports at £1,232,272 and £2,604,680. The principal exports are wool and hides, cattle, tallow, sperm-oil, timber, bark, etc. Hobart Town and Launceston are the principal seats of commerce.

89. The government is administered by a lieutenant-governor, assisted by an executive council appointed by the crown, and a legislative council of 24 members, of which two thirds are elected and one third nominated. The judicature consists of a supreme court, courts of quarter-sessions, and courts of requests.

90. The population in 1851 amounted to 70,130, of which 17,099 were convicts. This large proportion of convicts is unquestionably the worst feature in the society of the island, but the system of transportation having been abolished, improvement may be calculated upon. To their labor, however, must be attributed the construction of many excellent public works. The aboriginal population, once sufficiently numerous and powerful to contest the supremacy of the colonists, is now all but extinct.

91. Hobart Town, the capital, lies on the left bank of the Derwent, near its mouth. Latitude (Ft. Mulgrave) 42° 53′, and longitude 147° 21′. It is situated on two declivities, and is regularly and well built, and contains many good dwelling-houses and stores, the government buildings, a college, market-house, etc.; and of late docks and wharves have been built along the river, which accommodate large ships. Population 21,467.

92. Launceston, the second most important town, stands at the confluence of the two Esks, which form the Tamar, 45 miles from its outlet in Bass' Strait. It has convenient wharves. Population 10,100. A good highway, 130 miles long, and built by convict labor, connects it with Hobart Town. York and Georgetown are two small towns on Port Dalrymple, the estuary of the Tamar. Richmond, on Coal River, 12 miles northeast Hobart Town, contains 8,300 inhabitants. Longford has a population of 3,690, and Avoca is a small town of 963.

93. Van Diemen Land was discovered by Tasman in 1642. In 1797, Mr. Bass, a British navy surgeon, ascertained it to be an island, and from him the strait separating it from Australia took its name. The first settlement on it was made in 1803 by a guard of soldiers with a body of convicts. In the following year Hobart Town was founded. In 1819 the immigration of free settlers from England commenced. Till the year 1824 the government was subject to that of New South Wales, but was then made independent of that Colony. In 1851 it received a new charter similar to those of the other Australian colonies.

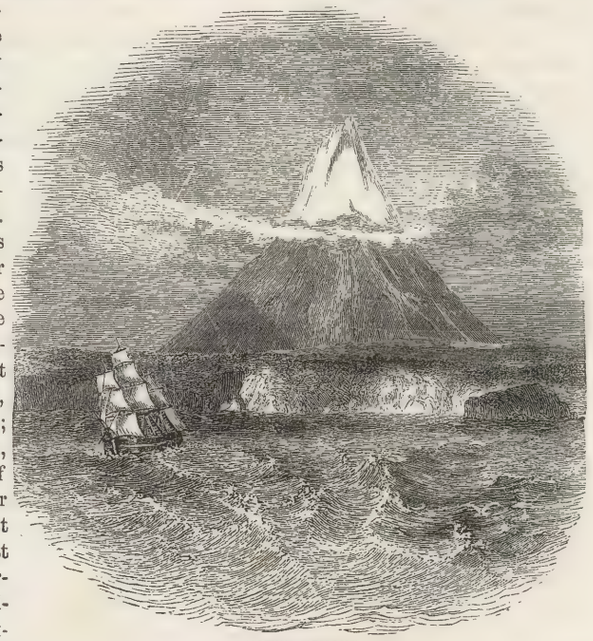
COLONY OF NEW ZEALAND.

94. New Zealand lies between latitudes 34° 24′ and 47° 32′ south, and longitudes 166° 12′ and 178° 30′ east, and consists of two principal islands—the one called Eaheinomauwe, North, or New Ulster, and the other Tavai-Poenamoo, Middle, or New Munster, and of a much smaller island called Rakiura, New Leinster, Stewart, or South Island. The length of the whole group, measured on a line curving nearly through their centers, is about 1,200 miles, and their aggregate area is estimated at 100,000 square miles.

95. New Ulster, the most northern of the group, and separated from New Munster by Waikua or Cook's Strait, which, where narrowest, is 25 miles wide, is so irregular in shape and so much broken by deep bays as scarcely to admit of general description. It is about 400 miles long and 270 broad, and is estimated to contain 48,000 square miles. An idea of its shape will be obtained by considering it as composed of a main body and four great peninsulas.

96. The main body of the island, as well as its peninsulas, has for the most part a very rugged and mountainous surface, and besides being traversed north and south by a great chain which throws off several transverse branches, presents a number of lofty isolated peaks, among which the most conspicuous are Mount Edgecombe, which towers above the Bay of Plenty to the height of 10,000 feet, and Mount Egmont, which has a height of 8,340 feet. Sedimentary rocks, chiefly gray sandstone, are often seen, both among the ridges of the interior and on the coast, where they frequently form precipitous cliffs; but the far greater part of the rocks are crystalline, and so evidently volcanic that their sides have all the appearance of continuous lava streams, while the intervening valleys and plains are in many instances literally covered with pumice-stone.

97. The streams which descend from the mountains are extremely numerous, and several of them have much greater lengths than might be expected from the extent of the island and its configuration. In general, however, they are mere mountain torrents. The largest of the rivers are the Waikato, augmented by the Waipa and the Manawotu. The former rises in the snows and glaciers of Mount Ruapehu (9,000 feet), one of the loftiest summits of the central chain, and flows in a circuitous course about 250 miles to the harbor Waikato, on the west coast, and, though interrupted by rapids, is navigable from its mouth 100 miles by vessels of 30 tons. The Manawotu, rising in the same central chain, and at no great distance from the Waikato, takes an opposite direction, and ultimately falls into Cook's Strait. It is navigable by small vessels for 50 miles. The only other considerable streams are the Wanganui, which flows to the northwest coast; the Pakuratahi, which flows south into Port Nicholson; the Waiwairoa, which falls into Hawke Bay; the Rangitaiki and Wakatani, which fall into the Bay of Plenty; and the Waiho or Thames, which flows northwest into the Firth of Thames. Most of these streams have their sources in lakes, many of them obviously filling the craters of extinct volcanoes; and, though often not of great extent, so embosomed among mountains and magnificent forests as to present scenery of extraordinary grandeur and beauty.



MOUNT EGMONT.

98. New Munster is of a much more compact and regular form than New Ulster, and though bulging out somewhat toward the south, may be considered as a parallelogram, stretching about 500 miles north-northeast and south-southwest, with a medium breadth of 100 miles and an area of about 50,000 square miles. In the south, where it is separated from New Ulster by Cook's Strait, it is rugged and broken, and so corresponds with the opposite coast as to suggest the opinion that the two islands were at one time contiguous. But with the exception of the north coast, and a remarkable spur on the east coast, called Banks' Peninsula, the coast-line is very continuous, presenting few indentations deserving of notice.

99. The interior has not been much explored, but it presents physical features similar to those of New Ulster, and in particular is traversed north and south by a lofty central chain, which is evidently a continuation of that which terminates on the coast of the northern island. This chain has an average height of 8,000 feet; but Mount Cook, near the west coast (latitude 43° 30′), has two peaks of 12,200 and 13,200 feet high respectively. Both in the interior and along the coasts several extensive plains have been found. The drainage is effected by numerous streams, which, instead of skirting the mountains by flowing north and south, and thus acquiring length sufficient for their development into rivers, flow directly east or west to the sea, and seldom lose the character of impetuous mountain torrents.

100. New Leinster, the third largest island of the group, lies south of New Munster, and is separated from it by Foveaux Strait, about 15 miles wide. It is of a triangular or rather heart-shaped form, about 46 miles from north to south, with an extreme breadth of 36 miles, and an area estimated at 1,400 square miles. Its shores have a very pleasing appearance, woods extending down to the water's edge, while numerous bays, separated by rocky headlands, covered with brushwood, indent the coast, which is fringed, more especially toward the south, with numerous islets. The largest of these indentations are Palliser's Inlet, on the northeast, a noble harbor, and the fine harbor of Pegasus Bay, on the southeast. Like the other two principal islands, the interior is mountainous, but the elevation is less, none of the summits exceeding 3,200 feet.

101. A great number of smaller islands belong to the New Zealand group, and for the most part are situated at short distances from the north and middle islands, though many beset the south island. The largest of these are Otea and Shoutourou, in the north, and Waikeki Reef, in the entrance of the Firth of Thames; Kapiti, in Cook's Strait; D'Urville, at the northeast entrance of Blind Bay; Resolution, on the southwest coast of the middle island, and the Snares, on the parallel of 48°, south-southwest of New Leinster.

102. The general prevalence of volcanic rocks has already been adverted to. Almost all the loftier summits bear obvious indications of having been either volcanic cones or craters, and in the truncated cone of Tongariro, in the central chain of New Ulster, at the height of 6,200 feet, the volcanic force is still active. Many other parts bear manifest signs of frequent upheavements and violent convulsions, and numerous shocks of earthquake have been experienced. The prevailing rocks of the mountain chains in which the volcanic peaks are situated are metamorphic schists, gneiss, clay slate, porphyry, and basalt. Granite seems to be of rare occurrence; but isolated masses of quartz occur in various places; and in localities transition slate, sandstone, limestone, etc. New Munster has been still less explored than New Ulster; but the geological structure appears to be almost identical, and both islands are notedly rich also in lignite, fossil animals, etc. It is not probable, however, that minerals of much value will be discovered. In the vicinity of the capital, however, copper mines have been opened with satisfactory results; sulphur also is very abundant, and titaniferous iron is found in various places. There are also indications of tin, lead, silver, bismuth, and nickel, and coal has been found and worked at Massacre Bay and several other places.

103. The climate, depending on altitude more than latitude, is very diverse, but its prevailing characteristic is humidity. At Auckland 52 inches of rain is the annual average, and the mean temperature is about 60° Fahr.—the extremes being 55° and 75°. In the southern island the extremes are farther apart, and ranging from below freezing-point to 80° and 90°. The prevailing winds are northwest and southeast, and hurricanes are both frequent and vio-

lent. In the extreme south the winters are boisterous and cold. On the whole, however, the climate is remarkably healthful, and from its general moisture fosters an exceedingly luxuriant vegetation.

104. The distinguishing feature in the botany of New Zealand is found in its ferns, which, with algæ, lichens, and fungi, grow to an immense size. The ferns, indeed, are in great variety, and, replacing the grasses of other countries, form the only vegetation over immense districts. Some of them are from 30 to 40 feet high, and are remarkable for their elegance. One of the most common is the pteris esculenta, the root of which is eaten by the natives. Another remarkable plant of great economical value is the phormium tenax, which is found everywhere, and produces the finest of flax, and one species of phormium has leaves 12 feet and flower stalks 20 feet long. The coniferæ and taxideæ furnish valuable descriptions of timber; among others is the "kauri" or damara austrica, with a smooth gray columnar trunk through its whole height of from 60 to 90 feet. Its timber is highly prized. Among fruit-trees the most remarkable is the areca sapida, of which the undeveloped plaited leaves are eaten and the full leaves used for roofing.

105. The animal kingdom is extremely limited. Captain Cook found no trace of any quadrupeds except a sort of fox-dog and a few rats, and no others have since been discovered. Of the animals that have been introduced, the hog thrives best and multiplies prodigiously, finding abundance of food in the fern root, and occasionally varying its diet with the oysters and immense cockles strewn upon the shores. All the other domestic quadrupeds appear to be easily acclimated, and the sheep in particular have become numerous. Birds are not remarkable either for variety, song, or plumage, but exhibit in the apterix, so called from having no wings, one of the most curious and gigantic class of birds in existence. Several varieties of whales and seals inhabit the neighboring seas, and the coasts teem with fish, among which one of the best known is the hapuka, resembling the cod, but superior to it both in nutritive properties and flavor, and weighing from 70 to 100 pounds.

106. The natives of New Zealand, supposed to belong to the Malay family, furnish, perhaps, the finest specimens of savage man. The men are tall, strong, and active, and the women often handsome, and both sexes are almost uniformly well-shaped, and dressed in mats of various kinds made of native flax braided by the hand. Their intellectual and moral qualities keep pace with their physical, and, with exception of cannibalism and infanticide, they are not addicted to the usual vices of savage tribes. They practice tatooing, and form designs over their bodies of remarkable elegance. They live in villages or "pahs," situated frequently on an eminence, and generally surrounded by a palisade; but in respect of their buildings they are far behind other Pacific islanders. This people, however, have received instruction from missionaries, and not only have 99 out of every 100 become Christians, but have made great progress in material civilization; and when admitted to the privileges of the constitution which the British parliament has sanctioned, they will no doubt be able to maintain their place in the legislature without suffering by comparison with their European colleagues. Their whole number is stated at from 120,000 to 160,000, of whom not more than 7,000 reside on the middle island.



NATIVES OF NEW ZEALAND.

107. The immigrant population, according to a census taken in 1851, numbered 31,907 souls. These have been chiefly introduced by the New Zealand Company, but in 1852 the claims of the company were given up to the English government upon receiving a compensation for their outlay to the amount of £268,370, to be paid out of the sale of the waste lands.

108. The affairs of the Colony are administered by a governor with an executive council, consisting of the secretary, treasurer, and attorney-general. The settled portion is divided into the provinces of Auckland, New Plymouth, Wellington, Nelson, Canterbury, and Otago, each of which has a superintendent and a provincial council; and the Colony at large has a legislative council and house of representatives. For ecclesiastical purposes New Zealand is divided into the bishoprics of Auckland and Christchurch, both suffragans to the see of Sydney. The revenue of the Colony in 1854 was £162,496, and the expenditures £136,220.

109. The progress made by the Colony in general industry has been very encouraging. Agriculture has flourished and stock has rapidly increased; and in all the towns a multiplicity of trades are pursued. In 1851 the exports were valued at £84,160, and in 1854 at £402,831; and the imports for the same years at £349,540 and £586,753. The chief articles of export are flax, hemp, and cordage; skins and leather; whale and sperm oil, whalebone and wool. The quantity of wool exported in 1854 was about 800,000 pounds.

110. Auckland, the seat of government, is built on the south shore of Waitemata Harbor, which opens into the Firth of Thames. Latitude 31° 51′ 27″, and longitude 174° 47′. The town stands on cliffs of sandstone, backed by rising ground, and several volcanic cones rise in its immediate neighborhood. The principal buildings are St. Paul's Church and several chapels, two sets of barracks built of scoriæ, a public hospital, market-house, bank, etc. There are also several bridges, wharves, and landing-places. The residences of the governor and bishop are closely adjacent; and four miles from the town, on the banks of the Tamaki, is St. John's College. Population of the town about 4,000, and of the district 8,840.

111. Wellington, the principal settlement of the New Zealand Company, lies on the shores of Port Nicholson, at the south end of New Ulster. Latitude 41° 15′, and longitude 174° 47′. The town extends about three miles along the harbor. It contains several public edifices and about 600 houses, with 13 places of worship, and 38 schools, and is the see of a Roman Catholic bishop. The harbor is safe and has good holding ground. Population 5,722. Akaroa is a French settlement near the southeast point of Banks' Peninsula, in New Munster. Latitude 43° 52′, and longitude 173° 12′. The harbor is an inlet seven miles deep, and perfectly land-locked.

112. Canterbury is the name of a settlement which comprises the whole of Banks' Peninsula and the adjacent country. The population in 1851 was 3,734. Within this two towns have been formed—Lyttleton, at Port Victoria, and Christchurch, on the plains. The settlement was founded in 1849, upon strictly Church of England principles, and in 1854 Christchurch was erected into the second bishopric in New Zealand. Nelson, on Nelson Harbor, in Blind Bay, was the second settlement of the New Zealand Company, and made in 1843. The port is good. Population 4,287. In the vicinity is abundance of coal. New Plymouth, situated on the north side of the peninsula of which Mt. Egmont is the western termination, was founded in 1841. It faces the sea, but has no harbor, which is the only drawback, for the country around is very fertile, and both coal and iron are abundant. Population 1,532. Among other towns may be named Clutha and Port Chalmers, on Otago Harbor, both settled by members of the Free Church of Scotland; and Petre, a small but flourishing place on the Wanganui River, 100 miles north of Wellington.

113. Of the native villages many have risen to respectability under the charge of missionaries, and among these may be named—Kaitaia, in the valley of the Awaroa; Otaki, on Cook's Strait; Putikiwaranui, opposite Petre; Waikenae, about 20 miles south of Otaki, etc. These and numerous others have churches, schools, etc., and are engaged in various industrial pursuits.

114. These islands were discovered by Tasman, in December, 1642, and were subsequently visited by Cook (1769), Vancouver (1791), and others. From this time the neighboring seas were visited by whalers and sealers, and a few settlements to facilitate operations were made on the east coast of New Ulster. In 1841 missions were established. Hitherto, however, no European government had taken possession of the islands, but in 1833 the English sent out a consul to protect the settlers; and in 1838 the New Zealand Company was formed, and in 1839 sent out their first colony. In 1840 the English government made a regular settlement on the shores of Port Waitemata, when the town of Auckland was built, and in 1842 the consul was raised to the dignity of lieutenant-governor, who, in 1841, purchased of the native chiefs the sovereignty of the islands. In 1845 the Colony, which had been to this time subordinate to New South Wales, was made independent of it, and in 1852 received its present constitution. In the latter year, also, the claims of the New Zealand Company were compromised.

PAPUA OR NEW GUINEA.

115. Papua is a large island immediately south of the equator and north of Australia, between the Asiatic seas on the west and the Pacific Ocean on the east; and connecting the Malay Archipelago on the one side with the groups of Polynesia on the other. The general direction of the island is west-northwest and east-southeast, and its astronomical position is between latitudes 0° 19′ and 10° 34′ south, and longitudes 131° 2′ and 151° 12′ east. Its length is about 1,500 miles; the breadth varies, deep inlets at both extremities dividing it into narrow peninsulas; but between 136° and 146° it is compact, and has a breadth of from 200 to 400 miles. The area may be estimated at 260,000 square miles.

116. This island has been little explored, and hence even the aspect of its coast is still a matter of inquiry, and its interior is wholly unknown. East of Torres' Strait (longitude 143°), which separates it from Australia, the coast forms a deep bay, extending through seven degrees of longitude, and facing the south. On the east side of this bay the shore is lined for about 150 miles with a barrier of coral reefs, 5 to 15 miles distant, with many openings, and inclosing within secure and spacious harbors. This coast is in some parts bold, and Mt. Astrolabe, the highest summit of a group rising close to the shore, has an absolute height of 3,800 feet; but behind, at a great distance in the interior, a much loftier chain of mountains may be distinctly traced through an extent of 250 miles. These mountains sink to the shore at Heath Bay (latitude 10½°, and longitude 150° 40′), and following them northwest the chief summits are—Mt. Suckling, 11,226 feet high; Mt. Obree, 10,246 feet; Mt. Owen Stanley, 13,205 feet, and Mt. Yule, 10,046 feet.

117. The west side of the great bay adjacent to Torres' Strait presents a totally different character. It is a great marshy flat, covered with dense forests, and intersected by innumerable fresh-water channels, forming a network of canals of all sizes, from that of a mere ditch to a width of five miles and a depth of five fathoms. In short this shore has, for a length of 70 or 80 miles, all the characteristics of the delta of a great river. The whole coast is formed by immense mud-banks, extending 10 or 12 miles out to sea, and having a general depth of water of only two fathoms. The rivers flowing through these numerous channels seem to be always full, and, owing to the great body of fresh water issuing from them, they influence the sea to a great distance. A large tract of coast north of Princess Marianne's Strait has a similar character, and the mud-banks extend so far out that even small vessels can hardly approach within 10 miles of land. From the isthmus south of Geelvink Bay, high mountains are visible to the east, but as the general direction of these chains seems to be east and west, they recede from the south coast and soon disappear. The north coast is said to be generally mountainous, as well as the west peninsular portion; and some of the mountains rise above the snow-line.

118. The climate of Papua is as remarkable for abundant humidity as Australia is for the want of it. This difference is to be ascribed not only to its position, close to the equator and within the range of the monsoons and equatorial stream of vapor, but also to its lofty mountains. Hence it is that Torres' Strait seems to separate two worlds of totally different aspects—the one a dry desert, with scanty vegetation and scarcely a palm-tree—the other covered with dense and varied forests.

119. Among the forest giants of this island the dryobalanop, or camphor-wood of Sumatra, is conspicuous; and in the low southeast shores the sago-palm lines the banks of the rivers. The natives cultivate with more or less care rice, maize, yams, cocoa-nuts, sago, sugar-cane, and at least three species of banana. Wild nutmeg and other spices are found in the woods; but the only productions of those forests sought after at present are the bark of the pulasarie and massey, which are carried by the Malays to China and Japan, where they are esteemed for their supposed febrifuge and other medicinal properties.

120. The animal kingdom appears to be limited in species as well as numbers. Of those hitherto known to exist, the greater number belong to the Austral pouched family. The kangaroos, however, are specifically distinct from those of Australia, and two species have the peculiar habit of living in trees. In birds, this island appears to be richer; about 60 species are already known, and brilliant feathers, particularly those of the bird of paradise, are among the articles exported. The most numerous tribe is that of parrots, and Papua may, without impropriety, be called the land of cockatoos.

121. The Papuans are negroes of small stature, distinguishable from African negroes by the narrowness and lateral compression of the head, by the smallness and almost disappearance of the chin, by the excessive thickness of the lips and breadth of the nostrils; and the nose is frequently curved downward by the weight of the ornaments attached to it. But this description does not apply to all the natives, who are evidently a mixed race, great variety of features (Malay, Jewish, and Papuan) as well as of color being found in the same community; and even on the coasts most remote from those habitually visited by the Malays, the Malayan arts of boat and house-building are well understood. The natives at the east end of the island have large canoes with outriggers and double lateen sails of matting. Their dwellings, raised above the ground, are firmly and neatly constructed, and on the low coast, where the people seem to be universally barbarous, there are seen good houses of bamboo. The use of iron is unknown to them. The men are nearly naked, hideously painted, and tatooed. The women wear petticoats made of pandanus leaf, and several of these of various colors are often worn in flounces, one over the other.



NATIVES OF PAPUA

122. According to some writers, the first discovery of Papua was made in 1511, by the Portuguese navigator Abreu; but it is more certain that in 1526 Meneses, on a voyage from Goa to the Moluccas, was driven by a tempest to these shores. Yet the Spaniards claim the discovery for Saavedra, who, in 1528, touched upon and gave his name to the north coasts. After this they were visited by numerous navigators and explorers, among whom D'Urville, Geelvink, D'Entrecasteaux, Dampier, etc., stand conspicuous. In 1828 the Dutch formally took possession, and again in 1835 sent an expedition to the island; but no permanent settlement has been made by Europeans, and the only result yet obtained is a general knowledge of the coasts useful to navigators.

ADMIRALTY, NEW IRELAND, NEW BRITAIN, ETC.

123. Such are the names of several large islands to the northeast of Papua. The Admiralty Islands lie in latitude 2° south, and longitude 147° 20′ east. The largest is about 60 miles in length and 35 in breadth. The group was discovered in 1616 by Schooten. New Ireland, in latitude 4°, and longitude 152°, is about 200 miles long and 20 broad, and is a hilly and well-wooded island. The inhabitants belong to the Austral negro race, and are remarkable for their scrupulous cleanliness. Northwest of this is the smaller island of New Hanover, and several still smaller islands lie around it; and separated from its southeast end by a strait is New Britain, which projects to the southwest, and which is about double its size. It consists mainly of two large mountainous, wooded, and populous islands, discovered in 1699 by Dampier. The Solomon Islands are a group extending from New Ireland in an east-southeast direction through 10 degrees of longitude; and the chain is continued still to the southeast, and terminates in the New Hebrides. These islands are all similar in conformation, all mountainous, covered with forests, and inhabited by the same Austral race. No settlement has been made on them by Europeans. Between the New Hebrides and New Caledonia is another group of the same description, called the Loyalty Islands.

NEW CALEDONIA ISLAND.

124. This island, lying between latitudes 20° and 23°, and longitudes 164° and 167°, is 220 miles long and 30 or 40 broad. In the center its mountains rise to nearly 8,000 feet elevation. The natives are Austral negroes, and in 1852 the French took possession of the island, and have since established a small settlement as a station for their Pacific squadron.

NORFOLK ISLAND.

125. Norfolk Island, between New Zealand and New Caledonia, is situated in latitude 29°, and longitude 168°, about 900 miles east-northeast of Sydney. Length five and breadth three miles; and the island is well-watered and fertile. In its center is Mount Pitt. It has otherwise little to claim special notice; but it has gained a notoriety as being a penal colony of Great Britain for refractory convicts and those most heavily sentenced. The usual number of convicts confined here is between 600 and 700. There are several other islands forming the Norfolk group, as Philip, Nepean, etc.

POLYNESIA.

1. Polynesia, a name compounded of two Greek words, signifying "many islands," comprises those countless islands, in groups or solitary, that lie in the Pacific Ocean to the eastward of Australasia, and extend to within a few degrees of the western coast of America. It will thus be seen that Polynesia forms the eastern division of what is expressed by the more general term Oceanica. These islands are divisible into three distinct physical classes: the mountainous, the hilly, and the low coralline.

2. The mountainous islands are, with few exceptions, truly splendid, the mountains rising gradually from their bases till their summits are lost among the clouds, and some of them are broken into a thousand fantastic shapes, and have their sides clothed with forests and bright and varied verdure. Beauty, wildness, grandeur, and sublimity are so fantastically blended and contrasted as to excite the most varied and delightful feelings. The bases of these mountains are bordered by fertile and luxuriant valleys, adorned with stately bread-fruit trees and many other tropical productions, some of which are of gigantic growth and of the richest foliage, all equally beautiful, but each having its own peculiar hue, from the darkest shade of green to the lightest tint. The plumes of the cocoa-nut tree, overtopping the whole and waving majestically in the passing breeze, give an exquisite finish to the landscape. The mountains in the islands of this class have generally an elevation of from 2,000 to 10,000 feet; in Hawaii alone they exceed 13,000. All of them exhibit evident traces of volcanic agency, and in several volcanic action is still rife. In many the rocks are composed of a fine-grained black basalt; in others there are pumice and other stones of varied appearance which have undergone the action of fire, and immense masses of conglomerate rubble are also met with. Whatever may have been their origin, it is evident that they must all have been under water; for on their loftiest summits coral shells and other marine substances are found in great abundance.

3. The islands of the second class are hilly rather than mountainous, being generally from 100 to 500 feet high. They are equally beautiful in appearance, and equally luxuriant in their foliage with those of the first class; but are less sublime and romantic. The rocks consist of crystalline carbonate of lime, having very much the appearance of the rocks composing the Giant's Causeway.

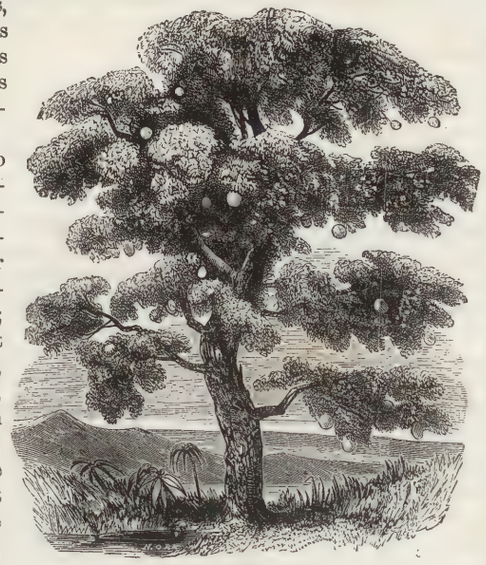
4. The third class embraces the low coralline islands, most of which rise only a few feet above the sea-level. They are generally small, and the soil upon them in many places thin, so that there is little vegetation besides the cocoa-nut trees, pandanus, some stunted hibiscus, with a few other trees of dwarfish growth, and a quantity of brushwood. The Friendly Islands, however, may be considered as exceptions; the soil there being much deeper, and every production of the islands of the first and second classes grows in them with luxuriant profusion. All the Society Islands, and also many others, are surrounded each by a belt of coral rock, from two or three to twenty yards in width, and situated at distances varying from a few yards to two miles from the shore. Against this barrier the long, rolling waves of the Pacific are driven with terrific violence; and towering in one vast sheet to an amazing height, roll over their foaming tops with majestic grandeur. The waters of the lagoons between the reef and the shore are placid and transparent; the bottom and sloping sides present a most enchanting picture—coral of every varying hue and shape intermingling in rich profusion, and suggesting the idea of submarine gardens.



CORAL ISLAND.

5. The greater part, and, indeed, almost the whole of these islands being within the tropics, the climate is necessarily warm and little varied—the heat, however, is delightfully tempered by the presence of the vast body of water by which they are surrounded. The vegetable productions are of course all tropical, and the soil of the volcanic islands in particular is so fertile as to produce spontaneously in abundance almost everything necessary for the support and the enjoyment of man. The principal products are—the bread-fruit tree, of which there are many varieties, and the fruit of which affords a nutritious food, while the trunk supplies timber for buildings and canoes, a gum which serves for pitch, and a species of bark which is manufactured into a substantial cloth; the cocoa-nut tree, which supplies food, drink, cloth, and oil; plantains and bananas of many sorts; yams and sweet potatoes; taro-root; sugar-cane, and various other edible roots and fruits. The only quadrupeds found in these

islands when first visited by Europeans were hogs, dogs, and rats; but birds were numerous, consisting of poultry, pigeons, turtle-doves, parrots, tropical birds, etc. The shores abound with sea-fowl, and the sea teems with excellent fish, swimming as well as crustaceous and molluscous, which the natives take with great dexterity.



BREAD-FRUIT TREE.

6. The Polynesians seem to belong to the Malay variety of mankind, and a general resemblance pervades them all; somewhat modified of course by the circumstances of climate, occupation, and habit. Their persons are generally short, squat, and robust; their lower limbs large and heavy; their arms fleshy; their hands and feet small; their faces somewhat lozenge-shaped, the forehead and chin being rather sharp, and the cheek-bones high and broad, with hollow cheeks. The eyes are black, small, and narrow, and obliquely placed like those of the Chinese; the nose broad but not flat; the nostrils open and circular; the mouth rather wide; the hair lank, coarse, and black. Their complexions are of various hues of brown, generally olive or light copper, but making in some cases an approach to white or black.

7. Everywhere the natives of these islands follow the same custom of marking their skins with indelible figures, often in elegant forms, but which have sometimes the effect of concealing their complexions, their faces in many instances being covered with them. This process they call tatooing. They have been found to be all very nearly in the same stage of civilization—the very children of nature; some of them, indeed, gentle in manners, but all addicted to serious vices; carrying on petty wars with savage ferocity, and making lawful spoil of the persons and properties of every stranger who comes in their way and can be mastered.

8. As the climate of their islands renders little attention necessary to clothing or habitations, their arts, with respect to these grand objects of more civilized communities, are very simple; but in regard to instruments of procuring food and carrying on war they display great ingenuity, though the want of metal has been a serious drawback. None of the islanders were acquainted with the use of iron. Their canoes they manage with great dexterity, and the ingenuity of their fishing tackle can only be exceeded by their skill in using it. Their hooks, however, are only made of pearl shells, bones, and hard wood.

9. Dispersed as the Polynesians are, and rarely and purely accidental as any communication between distant islands must have been, it is nevertheless certain that the different dialects which they speak are all referable to the same common language which seems still to form the original portion of the Malay; but their origin, with the time and manner of their migration and settlement in these innumerable islands are problems which still remain to be solved.

10. In manners, customs, institutions, superstitions, and religion, the general accordance of the Polynesians is as remarkable as in the case of their language. They had all the same form of government, the authority of which was divided among hereditary chiefs, often subject to a sort of king or superior, and to whom they paid great respect. The people seem, indeed, to have been divided in three classes—the chiefs, the free proprietors, and the lower class or serfs; and in many instances the distinction of classes was carried to the highest pitch. In many of the islands, however, these distinctions have been modified under the influence of Europeans, and in the Sandwich Islands the government is a moderate monarchy, with popular equality. In religion the natives are polytheists; every family has its guardian spirit, but they have also a god or gods of superior order. Some propitiate their gods by human sacrifices. Their priests are numerous, and are the physicians as well as the clergy of the islands. They generally believe in a future state of existence, but not in a place of punishment. Every sickness and untoward accident they consider as a judgment; and on all such occasions the priest is employed to pacify the offended deities. They believe also in dreams; but it were endless to repeat their superstitious notions, which, in fact, they only hold in common with savages in every part of the world; though unhappily the most cruel and unnatural customs are connected with them.

11. The principal islands of Polynesia are—north of the equator, the Bonin Islands, the Ladrone or Marianne Islands, the Caroline Islands, the Marshall Islands, the Gilbert or Scarboro' Islands, the Hawaiian Islands, etc.; and—south of the equator, the Fiji or Feejee Islands, the Friendly or Tonga Islands, the Navigator or Samoan Islands, the Kermadec Islands, the Cook or Hervey Islands, the Society or Georgian Islands, the Low Islands or Dangerous Archipelago, the Austral Islands, the Marquesas or Washington, etc. There are also immense numbers of smaller groups and single islands scattered over the whole bosom of the ocean, which even to name is beyond the province of this work. Some geographers also include in Polynesia many of the islands which are noticed under the head of Australasia, as Papua, New Britain, etc., the Solomon Islands, New Hebrides, New Caledonia, Norfolk Island, and others.

12. The Bonin Islands consist of several groups extending from latitude 27° 44′ to 26° 36′. The largest of the islands is Peel, on the west side of which is a good harbor, called Port Lloyd, in latitude 27° 6′, and longitude 141° 22′. The northern islands, called Parry's group, are inhabited by a colony from Japan. The southern islands are mostly volcanic, and in Sulphur, Allesandro, and St. Augustin islands there are still volcanoes in activity. To the southeast are the scattered islands of Guadalupe, Malabrigo, Grampus, Meares, etc., and to the west those of Kendrick, Dolores, and Borodino. These islands are hilly and well-watered, and covered with palms. Green turtle abound in the sandy bays, and whales abound in the adjacent seas. Commodore Perry, of the United States navy, visited Port Lloyd in 1853 and, subsequently recommended its purchase as a steamer depôt between California and China.

13. The Ladrones or Marianne Islands, between latitudes 12° and 21°, and longitudes 144° and 148°, are a long chain of islands, 16 or 18 in number, and mostly of volcanic origin, very rugged, but in aspect picturesque, being densely wooded and covered with perpetual verdure. The coasts consist chiefly of black and brown rocks, while the interior rises into hills and even mountains; but they also contain fertile valleys and abound with everything necessary to human subsistence.

14. The natives are tall, robust, and active, and naturally acute, lively, and ingenious. Their huts are constructed of palm leaves and divided into compartments. Only the five southernmost are inhabited. Guajan, the largest of these, contains the capital and seat of government, named San Ignazio de Agana, with a population of 3,000. The others are Rota (after Guajan the most populous), Aguijan, Tinian, and Saypan. Aguijan and Tinian are remarkable for the monumental remains of the ancient inhabitants. Asunçion and Pagon, in the north, are noted for their volcanoes; the latter rises to the height of 2,026 feet.

15. These islands were discovered by Magelhaens in 1521, and were settled by the Spaniards, to whom they still belong, in the middle of the following century. The immigrant inhabitants are settlers chiefly from Mexico and the Philippines, the Spaniards being now few in number and the aborigines having nearly altogether disappeared. The assumed land area of the group is 1,200 square miles, and the population 7,500.

16. The Caroline Islands, called by the Spaniards "Las Neuvas Filipinas," form an extensive archipelago extending between the Philippines and the Marshall Islands, from 135° to 163° east longitude, and between 5° and 10° north latitude. They are divided into numerous groups, the westernmost of which, the Paloas or Pellew, consists of seven large and many small islands, all of coralline formation, flat, and affording no secure anchorage. The principal island is Babelthouap.

17. Northeast of these is the group of Yap or Gouap, the chief island of which is elevated, and its mountains contain the precious metals. East of Yap is the group of Egoi, nearly all of which are low coralline islands, fertile, and partly inhabited. The other principal groups are—the Swede Islands, of which Vlee or Ulee is the largest; the Lütke Islands; Enderby Island; the Hall Islands; the Hogoleu Islands, the principal of which is D'Urville Island; the Mortlock Islands; the Siniavin Isles, and others. Ulalan, the easternmost of the group, in latitude 5° 19′, and longitude 163° 6′, is 24 miles in circumference, and has abundant supplies of water, fruit, and fish. It is divided by a fertile valley into two mountain masses, the summits of which rise respectively 1,856 and 1,867 feet above the sea.

18. The most important vegetable productions of the islands are palms, bread-fruit trees, and bananas; but the bread-fruit tree abounds only in the eastern islands, and the hog only in the Pellew group. The inhabitants belong to different races, and have made very different degrees of progress in civilization. In the central groups they are of a handsome physical type, active and industrious, and have some commerce. On the east generally, and on the west, with the exception of the Pellew Islands, the inhabitants, though apparently of the same stock, are far less advanced. The Carolines were discovered in 1543 by the Spaniard Lopez de Villalobos, and were so named in honor of Carlos II. They belong nominally to Spain.

19. The Marshall Islands comprise various groups, generally in two parallel chains, between 3° and 12° north latitude, and 164° and 173° east longitude. The principal groups are the Ralick, Radick, Pescadones, Mulgrave, etc. Together they are a crowd of low coral islets, affording but a scanty supply of food, and are entirely destitute of land animals except rats. The inhabitants are described more favorably than almost any other in the South Seas, as friendly, courteous, and amiable, and free from the thievish propensities and dissolute conduct that are so general.

20. The Gilbert Islands or Scarboro' Group lie between latitudes 2° south and 2° 30′ north, and longitudes 172° and 174° east. They are of coral formation and low, the highest land not exceeding 20 feet. The natives differ somewhat in their personal traits from those of other Polynesian islands. Their color is of a dark copper; hair fine, black, and glossy; nose slightly aquiline; mouth large; lips full, and teeth small, and the average height about five feet eight inches. The women are much smaller in proportion than the men, with delicate features and slight figures. The population of the entire group has been variously estimated at 60,000.

21. The Hawaiian or Sandwich Islands,* between latitudes 19° and 22° 30′ north, and longitudes 155° and 161° west, consist of 13 islands, which extend in a curve from northwest to southeast. Five of them are mere islets, and only four of the remainder are of con-

* The following summary of the principal statistics of the islands for 1853 will exhibit in a more tangible shape the various interests to which they relate.

(1.) The population of the several islands was as follows: Hawaii, 24,452; Maui, 17,574; Oahu, 19,126; Kauai, 6,988; Molokai, 3,607; Lanai, 600; Niihau and Kahulawe, 790.

(2.) Domestic exports: sugar, 634,955 lbs.; syrup, 18,244 gals.; molasses, 58,448 gals.; coffee, 50,506 lbs.; salt, 3,509 bbls.; Irish potatoes, 15,464 bbls.; sweet potatoes, 8,979 bbls.; swine, 3,724; sheep, 733; goat skins, 5,600; hides, 1,741; tallow, 16,452 lbs.; fresh beef, 33,000 lbs.; salt beef, 13,260 lbs.; wool, 10,824 lbs., etc.—value $281,599. Value of all exports, $472,997. Imports: from the Atlantic states, $587,770, and from California and Oregon, $367,149; from China, $42,056; from Chile, $38,090; from Great Britain, $20,471; from Bremen, $12,226; from Philippine Islands, $12,033, etc. Total imports, $1,281,951.

(3.) Shipping: 211 merchant ships, of which 154 arrived at Honolulu, 29 at Lahaina, 10 at Kawaihae, 8 at Waimea, 9 at Kealakeakua, and 1 at Hilo; and of these 137 (45,234 tons) were American, 17 (2,072) Hawaiian, 32 (6,185) British, 5 (866) Danish, 5 (1,034) French, and 3 (1,223) Russian.

(4.) Of 535 whalers, 246 visited Honolulu, 177 Lahaina, 66 Hilo, 12 Kealakeakua, 20 Kawaihae, and 12 Waimea; and of these 500 were American, 19 French, 12 Bremen, and 4 Russian. Oil transhipped—sperm 175,396 gals., and whale 3,737,348 gals.; bone 2,020,264 lbs.

(5.) The total number of native coasters was 32—1,338 tons.

(6.) Revenue, $326,620; expenditures, $265,795. Of the revenue $155,640 were derived from customs. In 1848 the revenue amounted only to $48,843.

(7.) Free schools in operation, 423; scholars, 12,205; expenses, $21,256. In these native teachers are employed; but there were otherwise 9 seminaries or select schools, in which English and the higher branches are taught, with 517 scholars. Of the public schools, 344 are Protestant and 79 Catholic.

siderable size; eight are inhabited, viz., Hawaii, Maui, Oahu, Kauai, Molokai, Lanai, Niihau, and Kahulawe. The area of the whole group is about 6,800 square miles, and in 1853 the population was 73,137, of which number 2,118 were foreigners. At the period of discovery there were upward of 200,000 persons on the islands, and as late as 1832 the inhabitants numbered 130,313 souls, so that in little more than a score years nearly one half of the race has been swept away, by disease and death. All these islands are steep and mountainous, with many lofty summits, which are entirely of volcanic origin.

22. Hawaii, the most eastern and largest of the group, is particularly elevated on its west coasts. On all other sides the slopes are less rapid, the shores spread out into wider plains, and the valleys opening from them contain much fertile soil. The interior forms a plateau from 3,000 to 4,000 feet high, and is almost entirely covered by thick forests partly roamed over by herds of wild cattle. Above the plateau rise 3 volcanic peaks, still active, the loftiest 12,800 feet high. Of Mauna-Loa, one of these peaks, a great eruption took place in 1852, when a column of molten lava was projected into the air to a height of 500 feet. The lava formed in some places a river of a mile in width, and filled up ravines 100, 200, and even 300 feet deep. The altitude of the eruption was about 10,000 feet above sea-level. A similar and equally frightful eruption also occurred in the year 1855.



CRATER OF KILAUEA.

23. The second island, Maui, west from Hawaii, is no less mountainous, and consists of two peninsulas connected by a flat isthmus—the one on the west with hills of only moderate height and a fertile soil, while the other rises to the height of 10,000 feet. Oahu, the third large island, has in its north part two summits rising from 3,000 to 4,000 feet; but the whole of the south part consists of a large and fertile plain, forming the best cultivated and most populous district of the whole group. On its south shore a wide barrier-reef contributes to form the excellent harbor of Honolulu. Kauai, the fourth large island, resembles Hawaii in its formation, and has an elevated plateau, with mountains rising from it to the height of 7,000 feet.

24. The inhabitants of this group belong to the light-colored Oceanic stock, and bear a very close resemblance to the other islanders of the Pacific, particularly to the Tahitians, in bodily appearance as well as in customs and modes of life, though in none of the other islands has civilization made so decided progress or produced more abundant fruits. The islands were discovered by Cook in 1778; and though that distinguished navigator afterward lost his life by the natives at Hawaii, they from the first manifested a decided inclination to live on friendly terms with Europeans, and a peculiar aptitude for understanding and adopting European manners and arts. They also gave a welcome reception to the Protestant missionaries sent among them, and voluntarily exchanged heathenism for Christianity. In the work of proselytism the American missionaries have long been conspicuous, and now hold a controlling power in the government. The resulting benefits to the natives have been seriously interfered with by the intermeddling of Roman priests, whose alleged ill-usage has furnished the French with a pretext for demanding redress, and thereby endangering the independence of the government, though the monarchical principle was more fully recognized in it and less hampered by the influence of powerful chiefs than in most other islands of the Pacific. The government, however, has now become consolidated and stable, the throne being hereditary, and supported by a parliament in which the aristocracy and democracy are alike represented. The form of government is not unlike that of Great Britain. In this comparatively insignificant state, indeed, the advantages and benefits of civil and religious institutions accord more fully with true notions of national worth than the boasted privileges of more pretending principalities. Industry and commerce have been encouraged, the customs of the old despotic systems abolished, and with spiritual instruction for guidance and the secular arm for support, a nation has emerged from obscurity to enjoy the blessings of civilization and freedom.

25. The Hawaiian Islands, with comparative slight deviation, are situated in the track of many important sea-routes, besides being themselves the principal depôt for whalers in the North Pacific. Honolulu, the only good port belonging to the group, is in latitude 21° 19′ north, and longitude 157° 52′ west. From San Francisco to China and from Honolulu to Australia the deviation is very small; and again, Honolulu is directly in the proposed route of steamers from Panama to Shanghae. In view of these facts their advantageous position indicates a future greatness for the group not possessed by any other point in Polynesia, and if only regarded as a depôt for the whale fisheries—one on the equator, another near Japan, and a third toward Behring's Sea, their importance is not materially diminished, and they would still serve for a common center of a commerce of no mean amount.

26. The principal towns and ports of this Kingdom are—Honolulu, the capital, on the island of Oahu; Lahaina, on Maui; Hilo, on Hawaii; and Hanalei and Waimea, on Kauai. Though Kawaihae and Kealakeakua are ports of entry, they merit no consideration as towns, being merely depôts for the surplus produce of Hawaii. The mountain villages, such as Waimea, Ulupalakua, Makawao, etc., are few, and consist usually of a limited number of native families residing in the immediate vicinity of an estate.

27. The civil divisions of the islands are districts, the bounds of which radiate chiefly from the center to the sea, and the subdivisions are native hamlets, every land or locality, however insignificant, being known by a distinguishing name. Communication between these towns and districts is as common by sea as by land; recourse is invariably had to the former when bad roads or natural obstructions render the journey fatiguing, and except by water there are no public conveyances. Honolulu is the center of these inter-island routes, and on most of these regular packet service has been established. Packets also ply between San Francisco and Honolulu, and in addition to these, and the annual visit of the whaling fleet, the islands have commercial relations with the principal maritime cities of Europe and America. The connection, however, is principally with the ports of the United States.

28. The Feejee Islands, between latitudes 15° 30′ and 19° 30′ south, and longitudes 177° and 178° west, are a group of 154 islands, 65 of which are inhabited, and are subdivided into two minor groups—the eastern and the Asaua, the latter forming the west side of the Archipelago. There are numerous spacious passages to and from the central space inclosed by the group, and known as the Goro Sea. Two of the islands only are of large size, viz., Viti Levu and Paou or Sandalwood; the other principal islands are—Vuna, Kantaou, Ovolau Bau or Ambou, Muthuatu, and Goro, and some of the others, though small, are populous. They contain each from 500 to 13,000 inhabitants. Most of the remainder are mere islets.

29. All of these islands are of volcanic origin, and mountainous; the peaks are usually basalt cones, some of which have an elevation of several thousand feet. A luxurious foliage covers the islands to their summits, and the valleys are beautiful and singularly fruitful. The climate is agreeable and healthy, and the soil generally a deep, rich loam, with a large portion of decayed vegetable matter. The chief food of the inhabitants is the yam, and sugar-cane, tumeric, and tobacco are also cultivated. Vegetation is exceedingly rapid. The coasts abound with fish, including several of peculiar species.

30. The Feejee islanders are a savage and barbarous race, remarkable for cruelty, deceit, and cowardice. Physically they are well-formed and of medium stature, with dark copper complexion. Human sacrifices are frequent among them, and cannibalism common. Shipwrecked people are invariably eaten. Their deities are worshiped by priests called umbat-



FEEJEE WAR-DANCE.

and in each community there is a mbure or spirit-house, which is always built on an elevation. The Feejeeans excel in the useful arts, such as building large canoes and the manufacture of native cloth and pottery. They are ruled by chiefs, to whom great deference is paid, and who in turn appear to acknowledge the supremacy of the chief of Bau or Ambou, who has recently assumed the title of Tui Viti, king of the Feejees. The missionaries have made great progress in the windward group, and among their converts is this potentate. The natives live in towns, which are usually fortified with strong palisades, and have but two entrances in which are gates, the passage being so narrow as to admit of only one person at a time. The dwellings are framed and filled in with reeds, with a thatch of wild sugar-cane. Population 133,500.

31. The Tonga or Friendly Islands, between latitudes 18° and 23° south, and longitudes 173° and 176° west, consist of three separate groups, which contain several hundred islands: fifteen of them rise to a considerable height, and thirty-five to a moderate elevation. The most southerly group, the Tonga Islands proper, were discovered by Tasman in 1643. The largest of them, Tonga, is about twenty miles long and twelve miles wide in the broadest part. It rises about eighty feet above the sea, and its summit is a level plain, with an excellent harbor on its northern side. The largest of the other islands of the group are Boscawen and Keppel. The central group, called the Hapai Islands, consists of a considerable number of small islets: the largest is Lefooga, about eight or nine miles long and four miles wide, and all are low and very fertile. The most northerly group is formed by the Vavaoo Islands, which are also small and low, except the island of Vavaoo, which is about thirty-six miles in circuit, with an uneven surface and of considerable elevation in the northern part. On its

southern side is Curtis Sound or Puerto de Refugio, one of the safest and most spacious harbors of the Pacific. The most northern island belonging to this group is Amaragure or Gardener Island, in latitude 17° 57′ south. The most southern of the Tonga Islands is Pylstaart, in latitude 22° 26′ south.

32. These islands are remarkable for the mildness of their climate, their fertility, and the great variety of their vegetable productions. Hogs and dogs are numerous, and both are used



COAST SCENERY OF TAHITI.

for food. Fish is plentiful, and also different kinds of birds, as fowls, pigeons, parrots, and the tropic bird, whose beautiful feathers here, as in other islands, are used as ornaments.

33. Cook called these islands Friendly, because he was well received by the natives, but it is now well known that they intended to kill him and seize his vessels. They are a very industrious people, and pay great attention to the culture of the soil. They apply themselves also to fishing, and evince much ingenuity in the manufacture of their clothing and of their domestic utensils. Their political constitution is a despotism, supported by a hereditary aristocracy; but many of the inhabitants have been converted to Christianity, and are partially civilized. The population of the whole of the islands is estimated at about 200,000.

34. The Navigator or Samoan Islands are a group situated between latitudes 10° and 15° south, and longitudes 169° and 173° east, and consist of nine islands, of which the largest, called Pola or Savaii, is the most western. It is about fifty miles long and thirty miles wide, and the mountains rise to the height of a thousand feet. Eastward of Pola is Oyalava or Upolu, which is hardly inferior in size. Maouna or Tutuila, also east of Pola, is much smaller, and the other six islands are smaller still.

35. This group is eminently volcanic—the rocks of the beach upon which the sea beats with so much force as to throw the water more than fifty feet high, are only pieces of lava, rounded basalts or coral, by which the islands are wholly surrounded. In the coral reefs are narrow passages for boats. Along the beach are level tracts, but at some distance inland the country rises into hills and mountains. The surface is clothed, even to the very summits of the hills, with trees loaded with fruits, and the lower parts are covered with extensive plantations of guavas, bananas, and other fruits. The sugar-cane grows spontaneously on the banks of the rivers. The islands abound in pigs, dogs, fowls, birds, and fish.

36. The population in 1854 numbered 33,901 souls, of whom about 120 were whites, and other foreigners about 60. Of the whole number, 11,736 were men and 9,844 women, and 6,456 boys and 5,865 girls. The population of the several islands were—Savaii 12,444, Upolu 15,587, Tutuila 3,389, Manua 1,275, Manoua 1,015, and Apolima 191.

37. The Kermadec or Curtis Islands are a small group in latitude 30° south, and longitude 181° east, and consist of Curtis Island, which is the largest, and of Macauly, Sunday, and Recherche, with numerous other smaller and desert islands. Only those named are inhabited. To the south of them are L'Esperance Rocks, and around are dangerous reefs.

38. The Hervey or Cook Islands, seven in number, are situated between latitudes 18° and 23° south, and longitudes 160° and 163° east. These are named Rarotonga, Atiu Mauki, Metiaro, Mangaia, Roxburgh, Witati or Manouoi, and Aitutaki. They are, however, small and unimportant. Rarotonga, the largest, about thirty miles in circumference, consists of a mass of mountains, and has a very romantic aspect. It presents bold cliffs to the sea, and is surrounded by a reef with several small openings, which admit small vessels, but afford no anchorage or shelter. The whole group appears to be of volcanic formation; the smaller islands, however, are less mountainous. The inhabitants have made some progress in civilization, and have been converted to Christianity. They live chiefly in villages, well built, plastered with lime and whitened, and in appearance clean and comfortable. The chief products are yams, sweet potatoes, figs, pine-apples, etc. Turkeys, fowls, and ducks are numerous. In March, 1846, these islands were visited by a great hurricane, which almost devastated them.

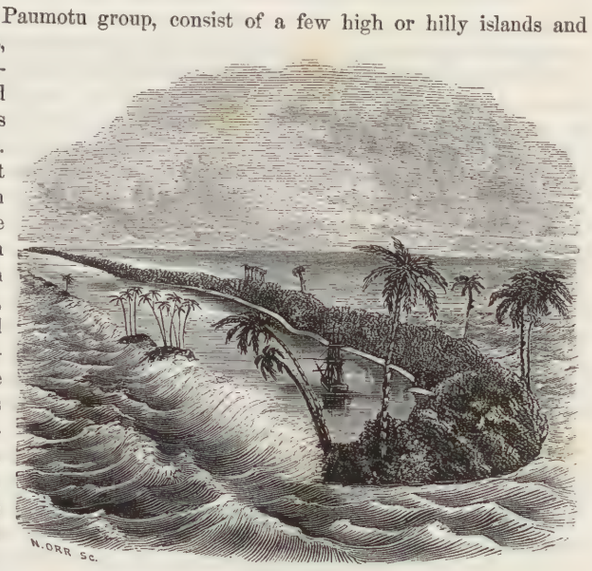
39. The Society or Georgian Islands, in some respects the principal group of the South Pacific, lie between latitudes 16° and 18° south, and longitudes 148° and 152° east; and between the Low Islands, which almost join them on the east, and the Friendly Islands, situated at a greater distance on the west. This group consists of the principal island Tahiti or Otaheite, which is about thirty-three miles long, and divided into two peninsulas by an isthmus about three miles broad; and a great number of comparatively small islands, of which the most noticeable are Pimeo, Maitea, Teturoa, Paponamoa, Huabine, Raiatea, Tahaa, Bora-Bora, Maupiti, and Motu-Iti. All the islands are elevated, and more or less mountainous.

40. Tahiti consists of an elongated ridge, the loftiest summit, Orohena, 8,500 feet above the sea, and two of the summits near it respectively 7,000 and 6,979 feet high. Among the mountains remarkable for their magnificent scenery are many deep valleys and romantic glens, in which a delightful climate and fertile soil maintain a luxuriant vegetation; but it is toward the sea-side and along the foot of the mountains that the land is both most densely wooded and carefully cultivated. A coral reef, encircling the island at a distance of two or three miles, presents an effectual barrier against the violence of the waves, and at the same time having several openings in it, forms a number of harbors where the sea is constantly tranquil and the largest vessels can ride in safety. The best of these harbors, and the only one much used, is Matavai Bay, on the north side. One of the most remarkable features in the vegetation of Tahiti is the extent of ground occupied by the guava-shrub; it was introduced from Norfolk Island about forty years ago, and now forms miles of woodland and bush entirely composed of it, and bearing a profusion of large and delicious fruit. The scenery of Eimeo is, if possible, still more attractive than that of Tahiti; and almost every island of the group has been described by navigators as realizing their ideas of an earthly paradise.

41. The Society Islands appear to have been discovered in 1606 by the Spanish navigator Quiros, who gave to Tahiti the name of La Sagittaria. It remained unknown to the rest of the world till 1767, when Captain Wallis, sent out by the English to effect discoveries in the Pacific, reached the island, and believing himself the first discoverer, gave it the name of King George Island. The year after it was touched at by Bougainville; but by far the most important visit was that of 1769, made by Cook in company with Sir Joseph Banks and an efficient scientific staff mainly for the purpose of observing the rare occurrence of the transit of Venus across the sun's disk. On this occasion Captain Cook, besides surveying the chief island, discovered several of the northwest group, and gave to the whole the name of Society. These discoveries excited the deepest interest in Britain, and one of its most important fruits was the formation of the London Missionary Society, which fitted out a vessel, called the Duff, to carry out missionaries and the blessings of Christian civilization. The result was successful beyond the most sanguine expectation. The great body of the natives abandoned their savage practices, threw away their idols, and had been formed into regular Christian communities, when the Popish propagandists, envying the Protestant success, sent two French priests for the avowed purpose of sharing in the evangelical harvest. The unwillingness of the natives to receive them easily furnished causes for complaint of ill-usage, and the French government, anxious to turn these complaints to good political account, have robbed the inhabitants of their independence by establishing a protectorate, under which there is reason to fear that all the labor and expense bestowed in civilizing the people will be lost.

42. The population of these islands has, like that of many other groups in the Pacific, decreased to a remarkable extent. In 1774 Cook rated it at 200,000; in 1797 the missionaries made it only 16,050; and a census taken in 1840 reduced it below 10,000. Of the latter number about 8,000 belonged to Tahiti and 1,000 to Eimeo.

43. The Low Islands, or Paumotu group, consist of a few high or hilly islands and seventy or eighty groups of islets, surrounded by lagoons, and scattered between the Marquesas and the Society Islands over not less than sixteen degrees of longitude. The most important for extent or the interest attached to them are—Anhar or Chain Island, the Gambier Islands, and Pitcairn Island. Chain Island, which was discovered by Cook in 1769, is about twelve miles long and above a mile wide. The Gambier group consists of five large islands and several small islets in a coral reef lagoon, and important as being (except Pitcairn Island) the only known station between Chile and Tahiti where water is procurable. Pitcairn Island is a solitary island in latitude 25° 3′ south, and longitude 130° 8′ east. It is of volcanic origin, and in its highest summit attains 1,040 feet. The hills are clothed with luxuriant verdure, and the bases of its lofty cliffs skirted with thickly branching evergreens. The climate is delightful.



CORAL REEF.

44. Pitcairn Island is chiefly interesting from its connection with the history of a remarkable colony founded here in 1790 by the mutineers of the British ship Bounty, and consisting originally of nine sailors, six natives of Tahiti, and twelve women. Thirty-five years after the first settlement Captain Beechy found here a most interesting and intelligent colony of sixty-six persons. Under the patriarchal superintendence of one of the original mutineers, an Englishman, named Adams, the children had been educated and trained up to habits of industry and morality. In July, 1851, the population had increased to 160 souls. They live chiefly on yams, potatoes, and other vegetables which they raise by their own labor. Annually a chief magistrate and assistant are elected by the votes of the community. They have a church, school, and comfortable cottages, forming a village. About ten or twelve ships, chiefly American whalers, visit the island, to whom provisions are supplied in exchange for

clothing, etc. The islanders speak and read the English language, are of an active and robust frame of body, dark complexioned, with pleasing countenances and hospitable and engaging dispositions. From the remains of the burial-grounds, the island would appear to have been occupied by inhabitants at a period antecedent to the visit of the mutineers. It was seen by Carteret in 1767, and named by him after one of his officers.

45. The whole group is nominally subject to the sovereign of Tahiti, and is supposed to contain about 10,000 inhabitants. These islands and groups are sometimes called the "Dangerous Archipelago," and well deserve the name, for numerous coral reefs, only a few feet above water, obstruct navigation, while currents and heavy squalls add to the risk. Most of the lagoons have harbors accessible to shipping.

46. The Austral Islands form a long chain to the southward of the Society and Low islands, and might, indeed, be considered as a part of the same groups. The principal are Rimatara, Oheteroa or Rourouton, Toobouai, Vavitooa, Oparo, Bass, and Rapa. They are high, fertile, and beautiful, and are surrounded by coral reefs, inclosing lagoons. Eastward of Oparo are four small and remarkable islets, called the Four Crowns.

47. The Marquesas or Washington Islands are situated between latitudes 7° 50′ and 10° 30′ south, and longitudes 138° and 140° east, and extend about 200 miles in a northeast and southwest direction. The cluster consists of twelve islands and islets divided into two groups; the more southerly group comprises the islands Hivaoa, Ohivaoa or Santa Dominica (which is the largest, being 25 miles long east and west, and from 6 to 8 miles broad); Fatouhwa or Magdalena, Motane or San Pedro, Taouata, Tahuata or Santa Christina, and the islet of Tiboa or Fetou-houkou, called Hood's Islet by Cook; and the principal islands of the northern group are—Noukaheva (the largest of all the Marquesas, 18 miles long and 10 miles broad), Houa-houga, Uahuga or Washington Island, Ouapoa, Uapoa or Adam's Island, Motou-iti or Franklin Island, and Hiaou and Fetou-ouhou, Knox, and Hanack islands.



LEAF AND FRUIT OF BREAD-FRUIT TREE.

48. An elevated ridge of rocky mountains traverses each island lengthwise, and in the larger ones rises to an elevation of 2,000 or 3,000 feet, and in one instance to nearly 5,000 feet. The mountains have on both sides high offsets which extend to the shores, and thus divide the lowlands into transverse valleys singularly picturesque, and watered copiously by streams which form numerous cascades. In the interior the highlands are mostly bare, rugged, and inaccessible. The coast is rocky, abrupt, and beaten by the surf. Noukaheva is of volcanic origin, and in all probability the same may be the case with the other islands. The soil is rich; in the valleys it is clay mixed with vegetable mold; but on the lower declivities it is thin and covered with coarse grass in tufts. There are numerous harbors, and many of them safe and eligible, as Resolution Bay on Taouata, and the three harbors Anna-Maria (Tayohoae), Comptroller's Bay (Cho-ome), and Tshitshagoff (Hapoa), on Noukaheva.

49. The climate is warm, the thermometer seldom indicating a temperature below 64° or 68° Fahr. In summer it ranges between 72° and 87°. Winter is characterized by abundant showers of rain; but sometimes not a drop of rain falls for nine or ten months, and vegetation in such seasons is either arrested or destroyed. Thunder-storms are of rare occurrence. The fruit-trees are chiefly the cocoa-nut, bread-fruit, and papaw. The inhabitants also cultivate bananas, plantains, sweet potatoes, and taro. From the bark of the mulberry-tree they make their garments. The wild cotton is superior to that which is cultivated in some other islands, and the sugar-cane is abundant, large in growth, and of excellent quality. Tobacco is also extensively cultivated. There are no quadrupeds except hogs and rats. Fish is abundant, and constitutes a main article of native diet.

50. The inhabitants belong to the same race that peopled the Society and the Sandwich islands. Their complexion is of a dark copper color. The men vary in height from four feet ten inches to six feet, and many of them are said to be remarkable for their symmetrical forms, but they are much disfigured by tatooing. The women have regular features, good complexions, fine teeth, and neat hands; but Captain Belcher denies them the extreme beauty ascribed to them by former voyagers, although he admits they are altogether the finest of the sex he had met with in Polynesia. The people of these islands were esteemed cannibals, and as cruel and ferocious: experience does not prove these asserted depravities, but, on the contrary, they are a fair sample of ingenuous savages.

51. The Marquesas Islands were so called in honor of the Marquis Mendoça de Canete, by Mendaña de Neyra, who discovered them in 1595. They have also been styled the "Mendaña Archipelago." They were subsequently visited and described by Cook and the Forsters in 1774, when Hood's Island was added to the group. In 1791 three more islands were discovered by an American captain, named Ingraham, and were called Washington Islands, a name which is now applied by American geographers to the whole cluster. In 1842 they acknowledged the sovereignty of France. Population 20,000.

52. To the westward of the Sandwich Islands extends a long chain of scattered islets and rocks in the following order: Bird's Isle, Neckar, Basse Française, Gardener, Two Brothers' Rock, Maro Reef, Laysan, Lisianski, Philadelphia, Pearl and Hermes Bank, Cure, Byers, Patrocinio, Morell, Roco de Plata Crespo, Rica de Ora of the Spaniards, Rica de Oro or Lot's Wife, Colunas, Ganges, Week's Reef, Krusenstern Rock to the southwest of Laysan, and Mellish Bank north of Byers.

53. Between Gilbert's Islands and New Hebrides on the west; the Feejee, Tonga, and Navigator islands on the south; the Society, Low Islands, and the Marquesas on the southeast, and the Sandwich Islands on the north, the following may be mentioned: Howland, Arthur, Kemin's, Jervis, Birney, Phœnix, Sidney, Duke of York's, Duke of Clarence's, Solitaria, Danger or San Bernardo, Duke Alexander I., Humphrey, Suvarof, Peregrino, Penrhyn, Woodstock, Caroline, New York, Starbuck, Volunteer, Maldon, Brook, Bunker, Christmas, Palmyra.

54. To the eastward of the Low Islands are found the islets—Elizabeth, Ducie, Easter, Sala-y-Gomez, Waihou, etc. Easter Island or Vahou, twenty degrees east of the Low Islands, in the direct route between them and Cape Horn, is only twenty miles in circumference, but is bold and rocky, strewn with lava, and contains numerous volcanic craters which are now extinct. It formerly contained some traces of ancient civilization in the shape of colossal statues representing, though rudely, the upper parts of the human body; but these have now disappeared. The island Sala-y-Gomez is considered as forming the southeast angle of Polynesia, and a line drawn from this to the intersection of the fortieth parallel of north latitude with the 150th meridian west from Greenwich, separates America from Oceanica.

55. Eastward of this supposititious line, and between it and the coast of America, are also numerous islands, both in groups and scattered. These belong, according to conventional usages, to the nations now occupying the mainland. The most important are the Galapagos, a numerous group lying on the equator, from ten to twelve degrees west of Quito and Guayaquil, and belonging to the Republic of Ecuador. The group consists of six large and seven smaller islands; Albemarle, the largest, is sixty miles long and fifteen miles broad, with mountains 4,000 and 5,000 feet high. All are volcanic. They are frequented by turtles (galapagos, *Spanish*) of enormous size, whence their name, iguanas, and other reptiles, and contain guano beds of great value. On Charles Island a penal colony has been established by the Ecuadorian government; the other islands are mostly without population.

ANTARCTIC LANDS.

1. Antarctic Ocean is the name given to the expanse of sea at and around the south pole within the limits of the antarctic circle, but frequently used in a more extensive sense to designate the cold south oceanic regions, without any well-defined limits. The mystery in which these almost unknown latitudes were shrouded had invested them with an interest which prompted to many a daring adventure, but until recently without any tangible result. It is now otherwise, although there is yet much to learn—a space equal to the total area of North America being still unexplored.

2. During the sixteenth and seventeenth centuries cosmographers entertained the opinion that there must be a continent toward the south pole to counterbalance the mass of land which occupied so large a portion of the northern hemisphere; and accordingly, in the maps of these centuries, this imaginary continent is represented under the name of "Terra Australis Incognita." This notion continued to prevail till after the middle of the eighteenth century, when it was somewhat impaired by the result of Cook's second voyage—he having in the years 1772–3–4 and 5 traversed the southern ocean in different directions round the globe without discovering any other land than the island of Georgia and Sandwich Land.

3. No further attempts at discovery in this region were made within the last century. In 1816, however, Capt. William Smith discovered a group of lofty snow-clad islands, to which he gave the name of New South Shetland, to the southeast of Cape Horn; and a few years later Capt. Weddell discovered the New Orkneys in the same quarter, and in 1823 penetrated to 74° 15′ south (35° west), the farthest point yet reached. Trinity Land (70° south and 92° west) was discovered by the Russian navigator Bellinghausen; and in 1829 two islands, named Peter and Alexander, near the same parallel but farther to the east, were also discovered by the Russians. In 1831 Capt. Biscoe discovered Enderby's Land, under the antarctic circle, southeast of the Cape of Good Hope; and in the following year Graham's Land, Biscoe Isles, and Adelaide Island in the same latitude, but lying due south of Cape Horn.

4. Discovery now takes a wider reach. In January, 1839, a French expedition under Capt. D'Urville discovered a tract of land extending about 150 miles between latitudes 66° and 67° and longitudes 136° and 142° east, with a medium elevation of 1,300 feet above the horizon. The snow and ice which covered it gave its surface almost a level appearance; but little else was observable than ravines, inlets, and projections, which presented not a single trace of vegetation. Capt. D'Urville named his discovery Terre Adelée or Adelia's Land. On the very same day an American scientific expedition discovered land in latitude 64° 50′ and longitude 154° 18′ east; and one of the vessels, the Vincennes (Capt. Wilkes), ran down the coast to 97° 45′ east, about 700 miles, within a short distance of the land, and often so near as to get soundings with a few fathoms of line. In February of the same year Capt. Balleny of London discovered the islands which now bear his name, the central one of which lies in latitude 66° 44′ and longitude 163° 11′ east.

5. In 1840 an expedition was fitted out in England under the command of Capt. James Ross, R. N., for the purpose of making scientific, particularly magnetic, observations in the southern ocean. On the 1st January, 1841, he entered the antarctic circle and bore away southward. On the 11th land was seen rising in lofty peaks of 2,000 to 12,000 feet in height, completely covered with snow, with descending glaciers projecting many miles into the ocean, and presenting a perpendicular face of lofty cliffs. On the 12th he landed on a small island and took possession of the country in the name of Queen Victoria, whose name he has bestowed upon it. This island is composed entirely of igneous rocks, and is situate in 71° 56′ south and 171° 7′ east. Pursuing his course along this magnificent land (on the 28th), a mountain of 12,400 feet above the level of the sea was seen emitting flame and smoke in splendid profusion, and to this he gave the name of Mount Erebus (latitude 77° 32′, and longitude 167° east), and to an extinct crater to the eastward, of somewhat less elevation, that of Mount Terror—both after the ships which composed the expedition. The mainland preserved its southerly trending, and Capt. Ross continued to follow it until his farther progress in that direction was stopped by a lofty barrier of ice extending east-southeast. Pursuing the examination of this barrier he traced its continuity for 300 miles, and reached his highest latitude, 78° 10′ south, and was only prevented by the ice from reaching the magnetic pole or finding shelter for his ships on any part of the coast, which terminated abruptly in latitude 70° 40′ south, and longitude 165° east. The second year out was fruitless of discoveries. In the third year (28th December) land was discovered to the south and southwest of Cape Horn, and on the 31st the expedition reached a volcanic island situated in latitude 64° 12′ and longitude 56° 49′ west, in the bosom of a great gulf about 40 miles wide and about the same extent inland, bordered on the western side by snowy ranges, among which rises a magnificent table-topped mountain to the height of 7,000 feet. This gulf has been named the Gulf of Erebus and Terror. The island, though not more than two miles in diameter, projects a perfectly formed cone to the height of 3,500 feet above the sea. The expedition returned in 1843.



BEAUFORT ISLAND AND MOUNT EREBUS.

6. Beyond the mere discovery of these polar lands, the several expeditions, and especially that under Capt. Ross, have accumulated a vast fund of scientific knowledge. It is apparent that in these high latitudes vegetation has no existence—no traces of it having been visible on Franklin Island (12 miles long and 6 miles wide) situated in latitude 76° 8′ and longitude 168° 12′ east. It would appear also that the seas are comparatively shallow—the soundings of the Erebus and Terror rarely exceeding 400 fathoms, and being more frequently from 200 to 300 fathoms. And among the more remarkable discoveries of Ross is that of a permanently low barometric pressure in high latitudes over the whole Antarctic Ocean—a pressure inferior by more than an inch of mercury to what is found between the tropics. Another, and one of the most important objects of this expedition was to ascertain the position of the south magnetic pole, which Ross has placed in Victoria Land in latitude 75° 5′ south and longitude 154° 8′ east. The opinion of Capt. Cook has also been verified, and is now ascertained beyond a doubt that the ice of the antarctic predominates greatly over that of the arctic region, that encircling the south pole coming nearer to the equator by ten degrees than the ice around the north pole; and it may also be stated, though the fact is still disputed by scientific men, that there is now no absolute reason to doubt the existence of that antarctic continent which the early philosophers considered so necessary for the equipoise of the globe, and which the failure of Cook in 1772–5 had gone far to confute.

7. Besides the lands and islands properly included within the south arctic region, and to which attention has hitherto been solely given, there are within the limits of the southern ocean several islands too far distant from any great continents to be considered as belonging to them, and therefore not yet noticed in this work. In 1772 two French captains discovered a group of high and barren islands to the eastward of the Cape of Good Hope, which from them have been named Marion and Crozet islands. The two most westwardly were afterward named by Cook (who passed them in December, 1776) Prince Edward's Islands, in honor of the late Duke of Kent, father of Queen Victoria.

8. Farther east, between latitudes 48° and 50° south and longitudes 65° and 67° east, is Kerguelen's Land or the Island of Desolation, discovered by Capt. Kerguelen in 1772. It is about 100 miles in length and about 60 miles in breadth; but owing to the coldness and moisture of the climate it is almost totally destitute of vegetation. It is, indeed, represented as one of the bleakest and most desolate spots on the globe; but fossil wood and coal have been discovered in it, which may eventually become of great importance to Anglo-Australian steam navigation. It seems to be chiefly composed of trap and other igneous and volcanic rocks, which rise into hills from 500 to 2,500 feet high. The coast is deeply indented with bays and inlets, and the whole surface is intersected by lakes and water-courses.

9. Northeast of Kerguelen's Land are two small solitary islands, named St. Paul's and Amsterdam, which were discovered by the Dutch navigator Vlaming in 1696. St. Paul's, or the most northern island, is situate in latitude 37° 52′ south and longitude 77° 36′ east, and has an elevation of 2,760 feet. It is 12 miles in circuit, and in fine weather may be seen from the anchorage of the southern or Amsterdam Island, a distance of 60 miles on the same meridian. The latter is nine miles in length by five in width, of volcanic formation, without a tree or shrub and destitute of vegetation except coarse grass and a kind of rushes or reeds. It abounds in hot springs; and contains a magnificent oval-shaped basin large enough to contain the whole British navy. This fine harbor is evidently the crater of an extinct volcano, with deep water and an entrance of 25 yards in width.

10. Sandwich Land, discovered by Cook in 1775, between latitudes 57° and 61° south and longitudes 27° and 30° west, has since been found to consist of a number of islands which are constantly covered with snow. The Isle of Georgia (54° south and 37° west) is also a bleak and barren region, traversed through its length of 30 leagues by very lofty mountains, and so cold in its climate that the heat of summer is sufficient only to melt the snow on the low ground of the northeast side.

11. The most recent discovery is that of Kurd's Island, in latitude 53° south and longitude 73° west, and of two neighboring islets, one 30 miles to the west and the other 70 miles east-southeast. It was discovered by an American whaler in 1856, and when visited by Capt. Cubins, of the Caribou, while on a voyage from Liverpool to Australia in February, 1858, he found there the American schooner Oxford, of Fairhaven, the captain of which communicated the fact that the shores swarmed with sea-elephants, and that he had sent to America since the discovery 25,000 barrels of oil. Kurd's Island is bold on the northeast side, rising in some parts to 500 feet, and the bay where the schooner lay is a fine natural harbor, with good anchorage and 12 to 20 fathoms all over, and sheltered from all winds except the northeast. Besides sea-elephants there were penguins and other birds in myriads, and on an island about a mile apart from the main "it appeared to be a great mound of guano." The whole is of volcanic origin, and the greater part of the island was covered with snow. Lying as this island does in the direct track of vessels sailing from England to Australia, the discovery will be of importance, and from its position and natural facilities may be found desirable as a harbor of refuge.



14.495.100, of Nature.

ROMAN EMPIRE,

IMPERIUM ROMANORUM LATISSIME PATENS

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GRAECIA

SCALE OF STATUTE MILES.

50 Geographic or 57.63 Statute Miles, to one inch

ITALIA

SCALE OF STATUTE MILES.

100 Geogr or 115.26 Statute Miles to 1 inch

CAMPANIA

URBS CUM ADJACENTIBUS REGIONIBUS.

ASIA MINOR

ASSYRIA

MESOPOTAMIA

BABYLONIA

SUSIANA

PERSIS

CARMANIA Deserta

PARTHIA

HYRCANIA

MEDIA

ARIANA

DRANGIANA

GEDROSIA

MARGIANA

BACTRIANA

SOGDIANA

SCYTHIA

ARABIA DESERTA

ARABIA PETRAEA

AEGYPTUS

PONTUS EUXINUS

MARE CASPIUM

MARE ERYTHRAEUM

PERSICUS SINUS

MARE MEDITERRANEUM

MARE SUPERIUM

MARE CRETICUM

MARE AEGAEUM

MARE IONIUM

MARE ADRIATICUM

MARE TYRRHENUM

MARE

GALLIA TRANSPADANA

GALLIA CISALPINA

LATIUM

CAMPANIA

LUCANIA

BRUTTII

APULIA

SICILIA

SARDINIA

CORSICA

THESSALIA

EPIRUS

AETOLIA

ACHAIA

ELIS

MESSENIA

ARCADIA

LACONIA

ARGOLIS

ATTICA

BOEOTIA

PHOCIS

LOCRIS

DORIS

MACEDONIA

THRACIA

PAPHLAGONIA

BITHYNIA

GALATIA

CAPPADOCIA

PHRYGIA

LYDIA

CARIA

LYCIA

CILICIA

PAMPHYLIA

PISIDIA

MYSIA

TROAS

PALAESTINA

SYRIA

HEPTANOMIS

THEBAIS

Longitude East from Greenwich

Longitude East from Ferro

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